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IN THIS ISSUE

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ACUTE MECHANICAL INTESTINAL OBSTRUCTION IN THE BANTU

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During 1948-1951, 93,760 patients were admitted to Baragwanath Hospital. Approximately 40% of these admissions were surgical and 150 of these were suffering from acute mechanical intestinal obstruction. The incidence of the different causes of mechanical obstruction varies in its geographical and racial distribution. Diet is a factor that has not been stressed sufficiently. The South African Bantu tends to eat a high-residue diet and it is usual for him to have 2 or 3 bowel motions daily. This will be discussed more fully when we consider volvulus of the bowel.

Also remarkable is the almost complete absence of malignant disease as a cause of obstruction. The Bantu is singularly free from carcinoma of the gastro-intestinal tract. There was no obstruction due to this cause. In the 110 cases of intestinal obstruction described by Hamman and Alldis [11] only 4 cases were caused by malignant disease and one of these was not a Bantu. McIver [14] states that 10% of his 335 cases of intestinal obstruction in White patients, treated at the Massachusetts General Hospital, were caused by malignant disease and this is the usual incidence of most European series.

Table I indicates the causes of obstruction in 150 cases in this Series:—

TABLE I.

Obstructed external hernia	61
Obstructed internal hernia	5
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Intestinal ascaris	7
Tuberculosis of the gut	3
Fibrous stricture of the rectum	2
Mesenteric thrombosis	1
Total	150

Obstructed External Hernia. During the period under review, 607 cases of external hernia were admitted to hospital and of these 61 cases had signs of intestinal obstruction. These cases consisted of 60 due to strangulated inguinal hernia and one due to an umbilical hernia. The latter was associated with a tuberculous peritonitis. The percentage of obstructed hernia is high (10%) compared to the English and American literature (2-4%). The reason is probably that the Africans still fear hospitals and operations and present themselves when their symptoms become acute. Nine of the 60 patients with obstructed inguinal hernias had strangulated non-viable bowel and required resection (15.5%). This is higher than Borrie's series (1947) [13] where 10% of his cases required resection.

The mortality was low as none of the cases that required resection and only 2 of the 60 cases died.

No case of obstruction due to femoral hernia occurred and the only other hernia seen was a case of umbilical hernia with obstruction. Although umbilical hernia is a common condition in the African child, it is relatively rare in the adult and seldom causes any symptoms.

Internal Hernia. Five cases of obstruction due to internal hernias occurred. Three of these were associated with defects in the mesentery and 2 were obstruction of bowel in diaphragmatic hernias. One of the latter contained non-viable strangulated colon that had to be resected and the patient succumbed.

Adhesions and Bands. Of the 25 cases due to adhesions, one presented as a volvulus and has been included in that group. The number of cases due to adhesions is less than one would expect, because the Bantu as a racial group are extremely prone to fibrous tissue and keloid formation and a large percentage of the female population suffer from peritonitis due to salpingitis. In European populations, the commonest type of obstruction is due to adhesions. (McIver [14] 30% of 336 cases and Bodenheimer, Carsten and Fried [3] 26.9% of 104 cases.)

The cases in this group were treated primarily by continuous indwelling intestinal suction; the majority with a duodenal tube, and in some a Kantor tube was used. The Kantor Mercury weighted tube was found to be more satisfactory than a Miller-Abbott tube as it was easier to introduce into the small intestine.

Only 4 cases cleared up on this regime, and the rest required surgical intervention—laparotomy and adhesion section.

In only one case was the bowel gangrenous necessitating resection. In one other the bowel was so matted down by adhesions that an entero-enterostomy had to be performed. There were 5 deaths, one dying shortly after admission of toxaemia before surgery could be attempted. In only one of these cases was re-operation necessary for recurrent obstruction.

Intussusception. The incidence varies in many parts of

the world. It is more common in England, Denmark and Australia and less frequent in the United States of America and Germany. The South African Bantu probably falls in the less frequent group. Intussusception is less common in the South African Bantu than in his White counterpart. Perrin and Lindsay [15] found that 400 cases were admitted to the London Hospital in a 17-year period, and that 78.5% occurred in the first 2 years of life and 66.75% were under the age of one. In our small series (15 cases) 9 occurred in children and 6 in adults, i.e. only 60% were in children. Three of the children were females and 6 males, while in adults the same proportion occurred (2 females : 4 males). One child had a spontaneous cure as it passed the intussuscipiens *per rectum*. Four of our children died, one before surgery could be attempted due to the extreme condition of the child; at autopsy the gut was gangrenous. The Bantu child is brought to hospital late and the prognosis is therefore poor.

The age of the children varied considerably—4 being one year or less and the eldest being 3 years old. The ages of the adults varied from 18 years to 60 years. Two of the adult cases died; one was a patient aged 60 years, in whom the bowel was gangrenous and a resection had to be performed and the other had non-viable bowel that ruptured on the lightest handling. Only 2 cases had local aetiological factors—one with a Meckel's diverticulum that had strangulated and intussuscepted and a right hemicolectomy had to be performed; the other had acute bacillary dysentery.

Volvulus. This condition shows a very definite geographical distribution being much more common in Eastern Europe and the Scandinavian countries. Faltin,[5] and Braun and Wortman [4] stated that volvulus was responsible for 23% to 50% of all obstructions occurring in the Scandinavian countries and of these volvuli, 60–75% occurred in the sigmoid. It is also a common condition in the South African Bantu.[6, 9, 10, 20] In this series 23 cases were due to volvulus of the intestine, of which 16 were of the sigmoid colon, 2 cases affected the caecum and 6 cases affected the small intestine. The high incidence of sigmoid volvulus is significant as it differs from Hamman [10] and Wangensteen [19] who found it a more frequent occurrence in the small intestine. In the Bantu the sigmoid colon is usually redundant with a long mesentery. The Bantu have the habit of having 2–3 bulky stools daily. Both these factors predispose to volvulus. The other noticeable feature is that all the cases of sigmoid volvulus occurred in males.

Among the 16 cases of sigmoid volvulus there were 7 deaths, 6 associated with their intestinal condition and the seventh dying from a bronchiogenic carcinoma—the volvulus was only incidental to his stay in hospital. Of the remaining 6, 5 had gangrene of the colon when first seen, and one case died of obstruction very shortly after admission, the condition was found at autopsy.

In one case spontaneous reduction was achieved after the condition was diagnosed radiologically.

There were 6 cases of volvulus of the small intestine, one being associated with a Meckel's-diverticulum. In one case the entire midgut, from the second part of the duodenum to mid transverse colon was involved in a volvulus and in a second case, 13 feet of gangrenous bowel were found. Both cases were *in extremis* when first seen and proved to be fatal.

Volvulus of the caecum is relatively rare; 2 cases occurred during the period under review and a third subsequently. This is a relatively high incidence. Hamman [10] included 2 cases in his series and this is in keeping with the high incidence of bowel torsions in the Bantu. However Banerji [2] had 13 cases in a personal series of 650 cases of intestinal obstruction occurring in Indian patients. Aird,[1] Wolfer *et al.*[18] and Dixon and Meyer [7] in reviews on this subject state that only 200 cases could be collected from the literature and the incidence is less than 1% of all cases of intestinal obstruction.

For torsion of the caecum to occur, it must be mobile, and have a long mesentery. Wolfer, Beaton and Anson [18] found that this occurred in 11.2% of adults. The exciting causes described are variable and no aetiology can be ascribed.

One case of volvulus of the caecum merits description: A Bantu male patient J. S., aged 28, was admitted to Baragwanath Hospital on 29 June 1952, with a history of vague

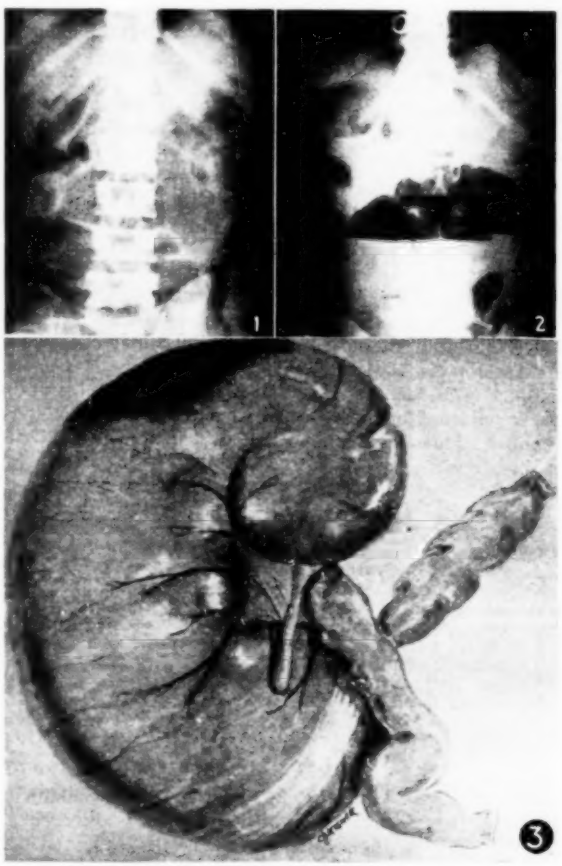

Fig. 1. Flat X-ray of the abdomen with the patient prone, revealing the distention in the colon on the right side.
Fig. 2. Patient sitting erect, showing the double crescentic distended loops very suggestive of a volvulus of the caecum.
Fig. 3. Diagrammatic representation of the condition of the caecum as found at operation. The caecum has rotated 180° and the terminal ileum is obstructing the transverse colon. The ileo-caecal valve is competent causing a closed loop obstruction.

abdominal pain for 4 days; before this he had been constipated. An aperient was taken and this caused diarrhoea with an exacerbation of pain. He had become distended since the day before admission and had been vomiting for the past 24 hours. The general condition of the patient was good except for some dehydration. His abdomen was distended and tender; no borborygmi were heard. X-ray of his abdomen revealed a characteristic picture (Figs. 1 and 2) and it was decided that a laparotomy was necessary. As soon as the patient was anaesthetized, a mass could be seen in his right iliac fossa and on opening the abdomen a volvulus of the caecum was found. The caecum had rotated 180° in a clock-wise direction and the anti-mesenteric border of this viscus was becoming gangrenous. A right hemicolectomy was performed. The patient made an uneventful recovery.

Fig. 3 shows the volvulus diagrammatically and it can be seen that the terminal ileum obstructed the transverse colon and the ileo-caecal valve being competent completed the closed loop obstruction.

Congenital Malformations. These are relatively rare in the Bantu; only 8 cases occurred in this series. Some of these patients suffered from imperforate anus and 4 cases had congenital atresias of the bowel. In one of the cases with an imperforate anus a complete agenesis of the rectum occurred: this case required a transverse colostomy, and subsequently died in hospital. Of the remaining cases, 2 had simple diaphragms over the anus and the fourth was a child aged 7 who had an imperforate anus with a recto-vaginal fistula that became obstructed. Incision through the perineal diaphragm with reconstruction and subsequent dilatations relieved this patient.

The 4 cases with congenital atresias are best classified as follows:

1. Multiple atresias of the duodenum and jejunum.
2. Complete absence of the colon.
3. Multiple atresias of the small intestine.
4. Atresia of the second part of the duodenum.

Congenital atresias of the bowel are rare, occurring in 1:10,000 to 1:40,000 cases and are multiple in approximately 15% of cases.[3]

Tuberculosis of the Gut. There were 50 cases of tuberculous peritonitis admitted to Baragwanath Hospital during the period under review and of these 3 had sufficient involvement of the gut to cause obstructive signs necessitating surgical treatment. One of these had a tuberculous involvement of the terminal ileum and had recurrent obstruction and was cured by a hemi-colectomy. The second had a fibrous stricture of the rectum and a tuberculous peritonitis. She was relieved by dilatations. The third case was a girl with a closed loop obstruction, which was shown at operation to be due to multiple adhesions which were freed; a stenosis of the ileum was found. An entero-anastomosis was done and the patient recovered. All these cases with tuberculous lesions healed well mainly due to the control of the infection with Streptomycin.

Intestinal Ascaris. The Bantu are heavily infested with *Ascaris lumbricoides.* In many of the cases that have a laparotomy, it is not uncommon to see and feel these worms through the bowel wall. In 7 of our cases the cause of obstruction was due to a heavy infestation of Ascaris that had become impacted. A flat X-ray of the abdomen reveals a typical picture in which the presence of worms can be diagnosed.[16] Conservative measures such as continual intestinal decompression with a duodenal tube are tried first; in 4 cases the acute episode subsided and the treatment of the worms was undertaken medically. The 3 remaining cases required enterotomy and evacuation of the worms. Once again we would stress the need for non-absorbable suture material in these cases because of the great danger of the absorption of the cat gut suture by the Ascaris and the disintergration of the suture lines.[17]

Fibrous Strictures. The late untreated cases of lymphogranuloma inguinale in the female result in fibrous strictures of the rectum and the anus. This has been the cause of obstruction in 2 cases, in whom dilatation relieved their condition. Acute intestinal obstruction due to this condition is rare and unusual.

DISCUSSION

In the analysis of these cases certain features are rather striking. The complete absence of malignant disease of the gastro-intestinal tract as a cause of intestinal obstruction is a feature worth noting. Higginson,[12] in the period 1948-50, reported only 11 cases of malignant disease of the gastro-intestinal tract below the duodenum and in none was intestinal obstruction a feature.

The high percentage of volvulus of the intestine is a feature in all reports on intestinal obstruction in the Bantu and the high proportion of sigmoid volvulus in this series should be stressed. The age group of the patients that we treat probably excludes such cases as diverticulitis and faecal impactions.

SUMMARY

1. One hundred and fifty cases of intestinal obstruction in the Bantu are presented.
2. The causes are discussed.
3. A case of volvulus of the caecum is described.
4. The absence of malignant disease as a cause of obstruction in the Bantu is stressed.

I must thank my Surgical colleagues at Baragwanath Hospital for allowing me access to their cases and to Mr. J. A. Allen for the photographs and Mr. C. D. Kisner for the diagram.

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South African Medical Journal

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VAN DIE REDAKSIE

NEUROCHIRURGIE EN BEHEERDE ASEMHALING —SUKSESVOLLE GEBRUIK DAARVAN IN AUSTRALIË

Narkotiseurs van die Royal Melbourne-hospitaal, Australië, het outomaties beheerde asemhaling vir breinchirurgie met welslae gebruik.

Die toerusting, vervaardig in Australië, was ontwerp om die nadele van handbeheerde asemhaling teen te werk; beheer van hierdie aard was tot nog toe nodig in verband met die toenemende gebruik by anestese van sulke verslappingmiddels soos Tubarine en Flaxedil.

Die nuwe masjien was in 1950, onder aansporing van Dr. Norman R. James, Royal Melbourne se Direkteur van Anestese, vervaardig, en was vir verskeie binnebuikse- en bors-operasies gebruik, en dikwels ook vir sulke noodgevalle soos verstikking as gevolg van barbituriese vergiftiging.

Die welslae daarvan het bygedra dat dit ook vir ander tipe operasies op die proef gestel was, en in Oktober 1952 was dit vir die eerste maal gebruik by 'n neurochirurgie-operasie wat 6 uur geduur het.

Dit het gou geblyk dat dit suksesvol is, veral by operasies wat chirurgiese aandag aan die dele van die brein vereis wat die asemhalingsentrum raak.

Australiese fisioloë het vir baie jare betroubare outomatiese masjiene vir die asemhaling van gekurariseerde diere gebruik, maar die toepassing van hierdie tegnieke in verband met verslappingsmiddels het nie so geredelik plaasgevind nie.

Doeltreffende outomatiese masjiene was ook in Swede en Denemarke in 1939 deur Anderson, Crafoord en Frenckner en in 1948 deur Mørch gemaak. Baie mense het gekla dat die Skandinawiese toerusting te lomp en ingewikkeld was. Australiese ontwerpers het egter die eenvoudige beginsels gevolg wat met die heen-en-weer handbeheerde asemhaling deur Water se apparaat toegepas word en het 'n betreklike eenvoudige en veilige meganiese sisteem ontwerp wat as 'n betroubare basis vir verdere praktiese ontwerp en kliniese ondersoek gebruik kan word.

'n Rubber blaasbalk word met gepaste inskakeling deur 'n vonklose induksiemoter aangedryf. Deur middel van 'n skakelwerking, beheer deur 'n klein handwiel, kan die gety-volume verander word om by die pasiënt se behoeftes aan te pas. Die snelheid van asemhaling word konstant op 20 per minuut gehou, en so ver was dit nie nodig om

EDITORIAL

NEURO-SURGERY AND CONTROLLED RESPIRATION— ITS SUCCESSFUL USE IN AUSTRALIA

Anaesthetists of the Royal Melbourne Hospital, Australia, have successfully used automatically controlled respiration for cerebral surgery.

The equipment, made in Australia, was designed to offset the disadvantages of the manual respiratory control hitherto required in conjunction with the increasing use in anaesthesia of such relaxing agents as Tubarine and Flaxedil.

The new machine was produced in 1950, under the prompting of Dr. Norman R. James, Royal Melbourne's Director of Anaesthesia, and was used for several intra-abdominal and chest operations, and frequently for such emergencies as cases of asphyxia due to barbiturate poisoning.

Its success earned it a trial for other types of operation and in October 1952 it was used for the first time in neuro-surgery, for a 6-hour operation.

It quickly proved successful, especially in operations requiring surgical attention to those areas of the brain impinging on the respiratory centre.

Australian physiologists have for many years used reliable automatic machines for the breathing of curarized animals, but there was not as ready an application of these techniques with relaxing agents.

Effective automatic machines have also been made in Sweden and Denmark—by Anderson, Crafoord and Frenckner in 1939, and by Mørch in 1948. Many complained that the Scandinavian equipment was too bulky and complicated. Australian designers, however, have followed the simple principles practised in manually operated to-and-fro controlled breathing through a Water's canister, and have evolved a relatively simple and safe electro-mechanical system which can be used as a sound basis for further practical design and clinical investigation.

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hierdie snelheid te verander nie. Drukking binne die omtrek word deur 'n watermanometer beheer wat deur 'n verplasingsuier verstel word. Hierdie manometer is ook 'n gevoelige veiligheidsklep en sal gou sulke onversigtighede, soos wanneer die chirurg se assistent te swaar op die pasiënt se bors leun, ontdek.

Die Australiese masjien is baie eenvoudiger om te gebruik as dié wat in Skandanawië ontwerp is. Buisinsetting word met 'n omgeslaande buis gedoen, nadat die pasiënt met Pentothal en 'n verslappingsmiddel soos Tubarine geanesteseer is. Deur die pasiënt se asemhaling met 'n gewone rubber opvangsak aan die gang te hou en die anestese gewoonlik met distikstofoksied en suurstof, word Water se apparaat aan die endotrachielbuis vasgemaak. Daar is 'n oorloopklep vir die orige distikstofoksied-suurstof mengsel.

Die oomblik wat alle konneksies behoorlik vas en gasdig gemaak is, word die opvangsak verwyder en die asemhaalmasjien in sy plek vasgemaak. Deur middel van die handwiel word gety-volume aangepas by die pasiënt se onmiddellike vereistes of by enige vereistes wat gedurende die operasie mag ontstaan. Drukking in die sirkelgang word gereël deur beweging van die verplasingsuier wat aan die watermanometer vasgemaak is. Die gewone lesing is tussen 100 en 130 mm. H_2O. As die narkotiseur vir een of ander rede na beheer met die hand wil oorslaan, dan ontkoppel hy eenvoudig die asemhalingmasjien en heg weer die handbeheerde rubber opvangsak aan.

Uitgebreide kliniese ondervinding met hierdie outomatiese asemhalingmasjien regverdig, na bewering, die aansprake wat deur Australiese fisioloë en Skandanawiese narkotiseurs gemaak word, dat outomatiese beheer beter as dié met die hand is. Dr. James sê dat daar slegs een uitsondering gevind is—waar 'n long gedurende sekere stadiums van 'n binnebors-operasie gemaneuvreer word.

Aangespoor deur Dr. James was die masjien ontwerp en vervaardig onder toesig van die Melbournese Universiteit se Dekaan van die Fakulteit van Medisyne, Prof. R. D. Wright. Die werk was met behulp van 'n toekenning van die Australiese Nasionale Gesondheids- en Mediese Navorsingsraad gedoen.

Dit moet egter erken word dat ons gedurende die laaste jare 'n verskeidenheid van duur en omslagtige outomatiese asemhalingmasjiene gehad het, wat met aansienlike geesdrif deur narkotiseurs in verskeie dele van die wêreld verwelkom is. Sommige hiervan was lomp en het in onbruik geraak. Daar was 'n neiging om tot die eenvoudige handbeheerde ‚heen en weer' of ‚sirkel' absorbeerder terug te keer. Die nuwe Australiese instrument kom sekerlik betreklik eenvoudig en nie-gekompliseerd voor. Dit mag derhalwe 'n permanente plekkie op die gebied van moderne anestese vind.

Of beheerde asemhaling by neurochirurgie wenslik is, is 'n geskilpunt. Baie narkotiseurs verkies dat 'n neurochirurgiese pasiënt vry asemhaal. Hulle meen dat 'n skielike en onverwagte komplikasie op hierdie manier gouer ontdek sal word. Vir dieselfde rede verkies baie borsnarkotiseurs die handbeheer bo outomatiese beheer.

Om die moeilike vrae wat gestel word te beantwoord, sal op die uitspraak van die geskiedenis afgewag moet word.

acts as a sensitive safety valve, and will quickly detect such indiscretions as the surgeon's assistant leaning too heavily on the patient's chest.

The Australian machine is much more simple to use than those designed in Scandinavia. Intubation is effected with a cuffed tube, the patient first being anaesthetized by Pentothal with a relaxing agent such as Tubarine. With the patient's breathing being maintained by means of the usual rubber reservoir bag, and anaesthesia usually by nitrous oxide and oxygen, the Water's canister is connected to the endotracheal tube. There is a spill-over valve for the excess nitrous oxide-oxygen mixture.

The moment all connexions are properly secured and gas-tight, the reservoir bag is removed and the breathing machine connected in its place. By means of the hand wheel, tidal volume is adjusted to the patient's instant requirements, or to any that may arise during the course of the operation. Pressure in the circuit is adjusted by movement of the displacing plunger connected to the water manometer, the usual reading being between 100 and 130 mm. H_2O. Should the anaesthetist for any reason wish to change back to manual control, he simply disconnects the breathing machine, and reconnects the manually operated rubber reservoir bag.

Extensive clinical experience with this automatic breathing machine is said to justify the claims made by Australian physiologists and Scandinavian anaesthetists that automatic control is superior to manual. Dr. James says that only one exception has been found—where a lung is being manoeuvred during certain stages of an intrathoracic operation.

Instigated by Dr. James, design and construction of the machine was carried out under the supervision of Melbourne University's Dean of the Faculty of Medicine, Prof. R. D. Wright. The work was done with the aid of a grant from the Australian National Health and Medical Research Council.

It should, however, be appreciated that, in recent years, we have had a variety of expensive and elaborate automatic breathing machines which were heralded with considerable enthusiasm by anaesthetists in various parts of the world. Some of these have been cumbersome and have fallen into disuse. There has been a tendency to return to the simple, manually controlled 'to-and-fro' or 'circle' absorber. The new Australian instrument certainly appears to be a relatively simple and uncomplicated affair. It may, therefore, find a permanent niche in the field of modern anaesthesia.

Whether controlled respiration in cerebral surgery is desirable is a moot point. Many anaesthetists prefer to have a neuro-surgical case breathing voluntarily. They feel that a sudden and unexpected complication will be detected earlier in this way. For the same reason many thoracic anaesthetists prefer manual to automatic control.

The answers to the difficult questions raised must await the verdict of history.

DEATHS AT A NON-EUROPEAN HOSPITAL (1945-1951)

A REVIEW

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In this paper we intend to discuss all deaths associated with general anaesthesia which have occurred at the Coronation non-European hospital since its opening at the end of 1944. It is hoped that in view of recent statements regarding the increase of anaesthetic deaths, this article will be of interest.

We particularly wish to stress the fact that this is a non-European hospital serving a large industrial and slum area; consequently the number of emergencies in relation to non-emergency cases is very high (38.6% of all cases operated on during the period under review). The condition of patients is often so grave that immediate surgery is their only chance of survival. It is therefore obvious that the death rate must be higher than it is in a non-emergency hospital.

Hamman and Aldis[1] state: 'In 1948 at this hospital (Coronation) out of 5,848 surgical admissions no fewer than 3,771 were for acute trauma, burnings, accidents, knife, blunt instrument and gunshot wounds. The urban Native lives against a background of almost unbelievable violence.'

We have divided our deaths into 2 main classes:

1. Deaths on the table;
2. Deaths occurring within 2 weeks.

Group (1) has been subdivided into:

(a) Cases where the anaesthetic was the main or contributing cause of death, hereafter referred to as 'true anaesthetic deaths.'

(b) Cases where death was due to the patient's condition and the anaesthesia in no way contributed towards the death.

I. DEATHS ON THE TABLE

Under this heading we have classified all cases which did not recover consciousness after the anaesthetic. This is in accordance with Section 86 of the Medical, Dental and Pharmacy Act, No. 13, of 1928. In all cases of death on the table we have not only obtained the inquest verdict but also the full post-mortem reports.

Fig. 1 illustrates the steady decrease in all deaths on the table from 1945 to 1950, with a slight rise in 1951. On analysis, however, it becomes apparent that the true anaesthetic deaths in 1951 were nil. The over-all rise in deaths on the table must be attributed to the fact that more grave risk cases came to surgery than in previous years.

Table 1 illustrates that regurgitation with aspiration was the commonest cause of death on the table in 1945. Due to better handling of our emergency cases, this mortality was reduced considerably in 1946 and 1947, and since then has been nil.

The question of food before an emergency anaesthetic is of paramount importance. Loubser[2] in 1945 noted: 'Many deaths have been caused, especially among the Native population, because anaesthetics were administered on full stomachs.'

The Committee set up by the Association of Anaesthetists to investigate deaths associated with anaesthesia[3] found no less than 43 out of 350 deaths investigated to be due to vomiting and aspiration.

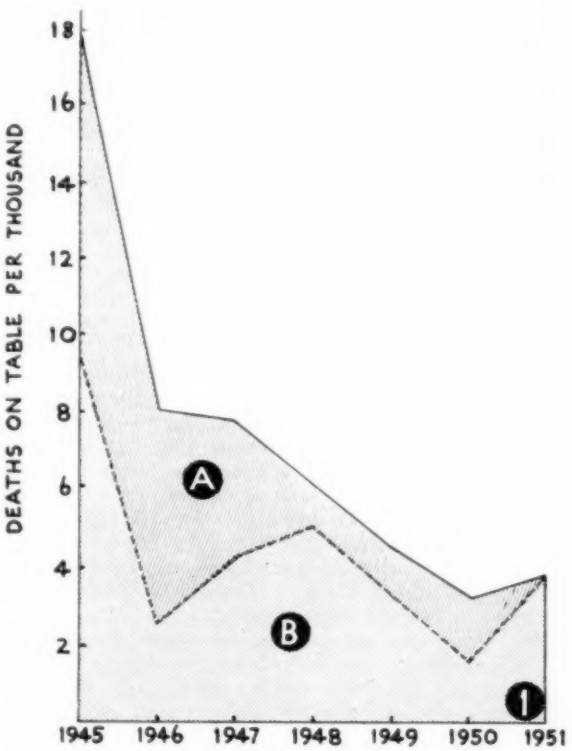

Fig. 1. 'A' represents deaths on the table due to anaesthetic causes.
'B' represents deaths on the table due to surgical causes.

* Senior Anaesthetist.
† Assistant Anaesthetist.
‡ Anaesthetic Registrar.

(a) True Anaesthetic Deaths.

TABLE I.

Year	Regurgitation and Aspiration	Respiratory Failure	Cardiac Failure	Inadequate Examination	Massive Collapse of Lung	Total	Total No. of Operations
1945	3	–	–	2	2	7	851
1946	1	2	3	–	–	6	1,116
1947	1	–	4	–	–	5	1,409
1948	–	–	2	–	–	2	1,801
1949	–	1	1	–	–	2	1,786
1950	–	2	1	–	–	3	1,853
1951	–	–	–	–	–	0	2,093

Analysis of the cases of 'respiratory failure' shows:

1. True asphyxia—2 cases;
2. Bad nursing—2 cases;
3. Insufficient aeration—1 case.

In (1) both cases were due to inexperience on the part of the anaesthetists, who failed to recognize cyanosis in a dark-skinned patient.

Both cases in (2) were straight-forward minor operations, where junior nurses, again in African patients, failed to realize that the patient was becoming cyanosed. This has been overcome by allowing only trained staff to nurse unconscious patients.

The case in the last group died due to failure to appreciate the effect of the relaxants in the very early days of their use. The respiration of the patient was not assisted adequately.

There have been 11 cases of death due to 'cardiac failure'. These can be divided into:

1. Cardiac failure plus toxaemia—5 cases.
2. Pure cardiac failure—4 cases.
3. Cardiac failure where insufficient aeration may have been a precipitating cause—2 cases.

In the first 2 groups malnutrition may be a contributing factor. More particularly may this be the case in Group 1, where 4 of the operations performed were of a minor character. These patients appeared relatively well before operation, but post-mortem examination showed marked toxic myocarditis and general toxaemia.

Our belief that malnutrition may be an important factor in these cases is borne out by the work of Weiss and Wilkins[4] who found that malnourished dogs and cats are apt to respond with cardiac standstill to operative procedures and drugs, both of which are well tolerated by animals that have previously received a balanced diet.

Realizing that in our patients pre-operative starvation may be an aggravating factor, and since many of these patients come to surgery at night, not having eaten for 12 to 24 hours, we now frequently administer intravenous glucose before anaesthesia. Blood pressure readings and pulse are carefully watched even in minor procedures. Since 1949 we have had no further cases of this nature.

Group 3 consists of 2 infants. In both, hypoxia may have been a contributing factor. The first was a brain operation in a very obese child in the prone position. This child was anaesthetized by an open endotracheal technique. It might have been better with assisted respiration. The second was a child seriously ill with intussusception with marked distention which interfered with adequate movement of the diaphragm.

In both cases classified as 'Inadequate Pre-operative Examination' the patients had pre-operative pneumonia which was not detected. This occurred in the very early days of the hospital. Now every patient is routinely seen pre-operatively by an anaesthetist.

Two cases of 'massive collapse' occurred during 1945. We can offer no explanation for them, except that in those days large doses of atropine were given routinely pre-operatively, viz. 1/50 grain, usually combined with Omnopon or morphine and this may possibly have been a contributory cause.

(b) Deaths on the Table not due to the Anaesthetic.

TABLE II.

Year	Grave Pre-Operative Risk	Toxaemia	Haemorrhage	Inexperienced Surgeon	Total
1945	7	1	–	–	8
1946	3	–	–	–	3
1947	4	–	2	–	6
1948	3	2	3	1	9
1949	5	–	1	–	6
1950	2	–	–	1	3
1951	4	–	4	–	8

Under the heading *Grave Pre-Operative Risk* we have included those cases where the patient's condition was critical, but it was essential to proceed with the operation. An example of this group is the following case:

A Bantu male aged 29 was admitted to hospital with a ruptured bladder and rectum, due to a crush injury of the pelvis. At 1 a.m. the patient was bled out and dying. He was given 2,500 c.c. of blood and 750 c.c. of plasma as well as ACTH 40 mg. and intra-cardiac adrenalin 5 minims. His condition improved slightly and it was decided that his only hope lay in operation. The posterior wall of the bladder was found to be severely lacerated, with fragments of bone protruding into it. The rectum was similarly lacerated. Operation was commenced at 4 a.m. and the patient died at 4.45 a.m.

Under *Toxaemias* we have classified those cases markedly toxic pre-operatively, e.g. extensive septic burns and a cellulitis of the face.

The cases which we have grouped as dying of *Haemorrhage* are those where there was a sudden uncontrollable haemorrhage during the operation and the loss was so sudden and severe that it was not possible to replace the blood sufficiently rapidly.

A Bantu male aged 28 was admitted to hospital with a stab into his chest and in extreme shock. An attempt was made to improve his condition with intravenous therapy

(1,000 c.c. blood were given) and he was also given ACTH, but it was felt that he was bleeding internally and, as no improvement resulted, operation was deemed essential. His condition on arrival in the theatre was critical. He was grey and sweating. His blood pressure was 70/68 mm. Hg with a pulse rate of approximately 160 per minute. He had a large haemothorax. The abdomen was opened and a large quantity of blood was found in the peritoneal cavity. At this stage the patient's heart stopped beating, but with cardiac massage and intra-cardiac adrenalin it recommenced beating. A hole was then found in the spleen and a splenectomy performed. Some of the blood was left in the peritoneal cavity and the abdomen closed. The patient was left on the operating table as his condition was very poor. He had typical air hunger breathing and his pulse was only just perceptible. He was given continuous oxygen and was on blood transfusions throughout, receiving a total of 2,500 c.c. whole blood, 500 c.c. plasma, and 50 mg. ACTH. He died approximately 2½ hours post-operatively without regaining consciousness. Post-mortem examination revealed that the patient had died from haemorrhage from a torn aorta not detected at operation.

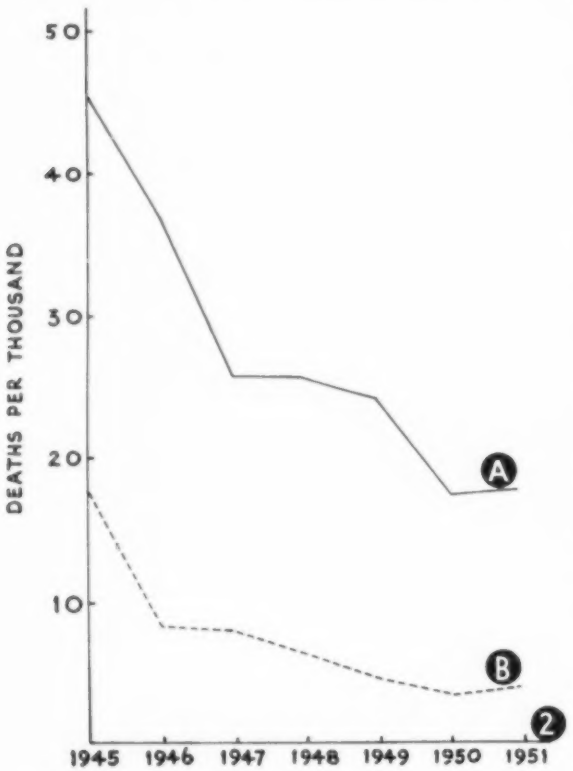

Fig. 2. 'A' represents total deaths per 1,000 up to 2 weeks post-operatively.
'B' represents deaths on the table per 1,000.

It will be noted that we have classified 2 cases as being due to *Inexperience of Surgeon*. We feel that the time factor in these 2 cases played a major part in their deaths, e.g. a pneumonectomy lasting 6 hours.

2. DEATHS OCCURRING WITHIN 2 WEEKS

As this is a discussion on anaesthetic deaths, we have only analysed these deaths with a view to seeing whether:

(a) The decrease of deaths on the table led to a proportionate increase in post-operative deaths;

(b) In any of the post-operative deaths the anaesthetic may have been a contributory cause.

Table 3 is self-explanatory. Under *Original Condition* we have included all cases where the patient did not recover from his original injury or disease, e.g. carcinoma.

Pneumonia and atelectasis are possible complications of any anaesthetic. The pneumonias are classified in Table 4.

Of the 16 pneumonias, therefore, only the 4 broncho-pneumonias may be attributable to the anaesthetic.

Table 3 shows that there were 2 cases of atelectasis. One occurred 2 days after an operation for peritonitis. The other was associated with a difficult thyroidectomy.

DISCUSSION

Whereas it might be thought that nowadays more patients survive the operation only to die later in the ward, this is disproved by Fig. 2 and Table 3, which show that the over-all number of post-operative deaths after general anaesthetics is decreasing.

It is obvious that as the anaesthetic and surgical teams become more conversant in dealing with serious cases, the

TABLE III.

Year	*Original Condition*	*Systemic Disease*	*Pneumonia*	*Shock and Haemorrhage*	*Peritonitis*	*Coronary Thrombosis*	*Intestinal Obstruction*	*Pulmonary Embolus*	*Total*
1945	19	–	1	1	1	–	–	2	24
1946	24	2	1	3	1	–	1	–	32
1947	15	–	4	4	1	–	1	–	25
1948	26	–	5	1	2	1	–	–	35
1949	25	1	6	3	–	–	–	–	35
1950	17	2	–	5	–	1	1	–	26
1951	20	1	2	2	1	–	2	1	29

TABLE IV.

Broncho-Pneumonia	*Hypostatic Pneumonia*	*Pneumonia and Peritonitis*	*Pneumonia and Ileus*	*Pneumonia and Pelvic Haemorrhage*	*Pulmonary Tuberculosis and Pneumonia*	*Pulmonary Oedema*
4	2	5	1	1	1	2

incidence of deaths on the table and over-all deaths must decrease. In a teaching hospital, however, new junior surgeons and anaesthetists are always being trained. At the period when this personnel is appointed, the death rates tend to rise unless there is adequate supervision.

We have found that proper training, from the beginning, of anaesthetic registrars in pre-operative and post-operative treatment, as well as personal supervision during the giving of anaesthetics, has reduced mortality to a minimum.

It is our policy always to have the services of a senior anaesthetist available. New anaesthetists are not allowed to administer anaesthetics to even minor cases without supervision, until such time as they are considered capable of dealing with any anaesthetic emergency. Members of the staff are encouraged to discuss with their seniors any difficult or serious case, and obtain their advice.

We believe with MacIntosh [5] that 'patients would be better off if research in new anaesthetic drugs is halted for 5 years, and attention directed more into training young anaesthetists in the care of the unconscious patient and in the correct adminstration of time-proved anaesthetics'.

The effect of this teaching on the mortality rate in our hospital is well borne out by reference to Fig. 1. In 1945 housemen gave the majority of emergency anaesthetics, whereas in 1951 there was a senior anaesthetist on call day and night.

Melzer [6] found that the anaesthetic death rates in non-Europeans taken from 13,558 cases was 101, i.e. 7.45 per 1,000 as compared to the European rate of 1.6 per 1,000. He found that the factors responsible for this excessively high death rate were:

1. Marked overcrowding at non-European hospitals, which interferes with adequate resuscitative measures and preparation before operation.
2. Lack of skill, experience and care on the part of the anaesthetists who serve the non-European hospital.
3. Poorer general condition of the non-European as compared to the European patient.
4. Difficulty in judging the degree of cyanosis in individuals with dark skins.
5. Severe injuries sustained by Natives and their great delay in seeking treatment for severe surgical conditions, thus making them worse surgical and anaesthetic risks.

By eliminating factors 1 and 2, and by attempting to improve the general condition of the patient, we have reduced our mortality rate from 17.6 per 1,000 in 1945, to 3.9 per 1,000 in 1951, and, as we have shown, not one of the deaths in 1951 was due to the anaesthetic. All were due to either the severity of the condition or to uncontrollable haemorrhage.

These figures still appear to be high when compared with the death rate in Europeans, as found by Melzer. This may be attributed partly to the high incidence of malnutrition among the Bantu. Gillman and Gillman [7] examined the livers of 261 Africans and 90 Europeans over the age of 10, who had died from trauma or other accidental causes. They found that 66.6% of the Bantu showed severe liver disease, in contrast to 32.2% of the Europeans.

The death rate is also influenced by the type of injury sustained and the critical condition of the patients pre-operatively. In the series of 77 deaths on the table reviewed by Faulkener-Hill and Hunter [8] in 1948, 13% were described as being almost *in articulo mortis* at the time of operation. In our series of 68 deaths on the table, 35.3% fall in this category. Of these 68 deaths 75% occurred in emergency operations of which 86.3% were major procedures. In the latter, the type of injuries sustained were such as are seldom seen in European hospitals.

Race may also have some influence on mortality rate. Trent and Gaster [9] found in an analysis of 54,128 cases, operated upon under spinal and general anaesthesia, that 66% of deaths occurred in Negroes, although only 15% of the cases operated on were Negroes. Gwathmey, and the older anaesthetists, always considered Negroes as sub-standard risks for anaesthesia and operation. [10]

Our mortality rate, therefore, is not comparable with that at a European hospital, nor with that at some other non-European hospitals at which anaesthetists may refuse to administer anaesthetics to bad-risk patients. We never refuse to administer an anaesthetic in any case where surgery is considered essential to save the patient's life.

SUMMARY

1. The deaths occurring under general anaesthesia on the table, and within 2 weeks after operation, at a non-European hospital are reviewed.

2. The rate per 1,000 deaths on the table as shown is still higher than at a European hospital. This is attributed to the more serious type of injuries sustained, the poor general condition of the patients, and the high proportion of major emergency cases.

3. It is shown that there has been a steady decrease of deaths on the table in which the anaesthetic has been the main or contributory cause.

4. This decrease is attributed to thorough teaching of housemen and new anaesthetic registrars and to adequate pre- and post-operative care.

5. It is shown that the services of a full-time trained staff not only reduces the hazard of death on the table, but also reduces the post-operative mortality.

We are indebted to Prof. R. H. Mackintosh of the Department of Health for his assistance and co-operation and to

Dr. V. D. Gordon, Medical Superintendent of Coronation Hospital, for permission to use the records.

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ECTOPIC HYDATIDIFORM MOLE

REPORT OF AN UNUSUAL CASE

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CASE REPORT

Mrs. M. S., aged 33, was admitted to hospital as an emergency. There had been severe non-radiating lower abdominal pain for over 17 hours. Vaginal bleeding had been present for 2 days, but not as much as in a normal period. It was darker than usual and contained clots. The patient had vomited on several occasions and had fainted prior to admission. Diarrhoea had been present since the previous day. The patient was in the habit of using a vaginal douche of hot soapy water at the time of the expected period. She had douched 2 weeks previously, when an expected period did not occur.

The patient had two children, aged 9 years and 7 years. She had had two miscarriages 10 years and 3 years previously; these occurred after douching.

The last menstrual period was in mid-June, 6-7 weeks previously. Menstrual cycle, 13:7/28. No dysmenorrhoea at any time.

There was no further relevant history.

Examination, the patient was thin, pale and showed the signs of shock. Blood Pressure 90/40 mm. Hg. Pulse rate 120 per minute.

There was rigidity over the whole abdomen. Dullness was present on subcostal percussion, and vaginal examination showed extreme tenderness on movement of the uterus, and in all fornices.

The history, symptoms and signs pointed to an ectopic gestation, although the onset was atypical, since at the commencement, there had been painless vaginal bleeding. However, the fact that the patient was given to douching, masked matters.

An immediate laparotomy was indicated. The patient received a blood transfusion and after resuscitation, operation was carried out.

At laparotomy, the most proximal interstitial portion of the right fallopian tube was found to be swollen and ruptured. The right cornua of the uterus was haemorrhagic and irregular for an area of about an inch in diameter at the utero-tubal junction. Free fluid and clotted blood, amounting to over a pint, was present in the peritoneal cavity.

The distal portion of the right tube, and the right ovary appeared normal. The left fallopian tube and ovary were normal.

A series of mattress sutures was inserted into the uterus proximal to the haemorrhagic area, care being taken to get the correct pressure to avoid cutting through of the suture material. A spencer-wells forceps was placed over the right tube distal to the rupture, and the area between the forceps and the mattress sutures was excised. This area included portion of the right cornua. The distal portion of the tube and vessels was tied off, and the edges of the raw area of this portion of the tube and broad ligament approximated to the raw surface of the uterus, the whole area thus being reperitonealized with the remnants of the right tube and broad ligament; the right ovary being left in situ. Blood and clot was removed from the peritoneal cavity, and when it was certain that there was no further bleeding, especially from the edge of the cut uterus, the abdomen was closed in layers.

The patient made an uneventful recovery. The opera-

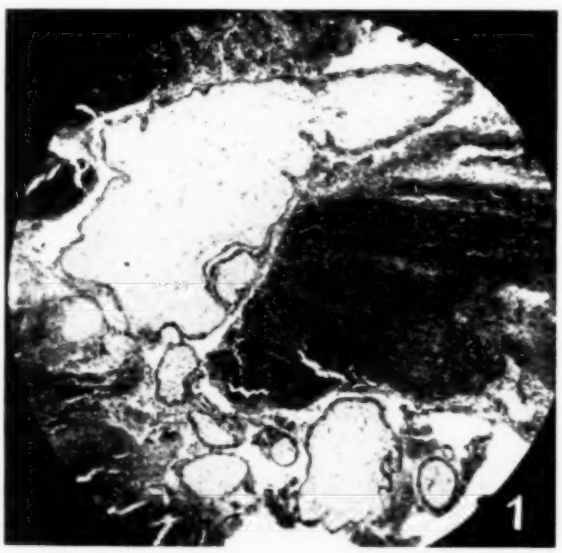

Fig. 1. Showing hydatidiform degeneration of the villi and trophoblastic proliferation in the fallopian tube.

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tion specimen was sent for pathological examination, and the following report was received:

'Tube filled with blood-clot that contains chorionic villi and trophoblast lining the mucosa of the tube. In some places oedema of the chorionic villi together with local trophoblastic proliferation produce the picture of hydatidiform mole. The cells are not anaplastic but mitoses are occasionally visible.' (Fig. 1).

The patient was discharged on the 19 August 1951. The general condition was good, the haemoglobin being 78%. The wound was well-healed; cervix normal, uterus anteverted with some tenderness in the right fornix. The Xenopus frog test was negative.

Follow-up. General condition normal; pelvic condition satisfactory. Uterus anteverted and mobile.

Xenopus Test. Negative on 31 August 1951, 28 September 1951, 26 October 1951, and 15 March 1952.

Further surveillance with increasing intervals between each examination will be carried out for 2 years.

DISCUSSION

Several interesting points are brought out in this case.

1. The onset of painless vaginal bleeding prior to the acute lower abdominal pain is unusual in ectopic pregnancy.[1] However, in this case the clinical picture may have been masked by the fact that the patient had used a vaginal douche. Here, too, a hydatidiform mole was present at the tubo-uterine junction and the erosive action of the mole on the uterine wall probably showed as uterine bleeding before the distention of the tube caused pain and rupture.

2. A technique to ensure haemostasis when excising the uterine cornua is described; namely, with a series of mattress sutures situated proximal to the excised area. Without this technique serious bleeding may result, necessitating more heroic measures such as hysterectomy. No macroscopic luteal cysts were seen in the ovaries. The right ovary was preserved and a method was shown of covering the raw surfaces with the peritoneum of the remnants of the broad ligament and tube, thus obviating post-operative ooze and subsequent fixity of the uterus, and bowel adherence.

3. The hydatidiform degeneration was not observed macroscopically emphasizing the value of microscopic examination of all pathological specimens.

Elements of hydatidiform degeneration may not be completely removed. These may become autolysed or go on to become chorion-epithelioma, illustrating the importance of follow-up in this case. Some authorities, such as F. J. Browne[2] recommend a two year surveillance clinically, and by urine testing for active chorionic tissues. Others, like D. M. Stern[3] recommend that 2 negative urine tests at a month's interval are sufficient. Schumann, as quoted by Novak,[4] showed that the incidence of ectopic gestation is 1 in 350 pregnancies, and that of hydatidiform mole to be 1 in 2,500. This illustrates the rarity of the combined condition.

I should like to make acknowledgments to Dr. Horace Joules, Medical Director of the Central Middlesex Hospital; and to Mr. J. S. MacVine, M.B., M.R.C.O.G., F.R.C.S.; and Miss M. A. M. Bigby, M.D., M.R.C.O.G. for their kind permission to publish this case.

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TRANSLUMBAR ARTERIOGRAPHY

A SURVEY OF ITS USES

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As translumbar arteriography is coming to be used more and more often, the possibilities of its many applications are becoming recognized. The purpose of this paper is to emphasize that it has many more uses than as an aid to distinguish between renal neoplasms and cysts, a belief prevalent amongst those not familiar with its other applications.

Technique. The technique is that adopted by Drs. Parke G. Smith and Arthur T. Evans at the Cincinnati General Hospital, Cincinnati, Ohio, U.S.A. The author has found it a most satisfactory procedure.

The equipment consists of 10 c.c. Sana-Lok syringe, plastic tubing with two Luer-Lok adaptors and a No. 18 gauge 6-inch needle.

The patient lies prone and a plain X-ray film, using a Bucky diaphragm and a 0.2 second exposure, is taken—it includes the lower chest, abdomen and pelvis. While the film is being processed, the left lumbar area is cleaned and painted with tincture of Merthiolate, and the area is surrounded by sterile towels. Sterile gloves are worn, and the syringe and attached tubing are filled to capacity with about 12 c.c. of 75% Neo-Iopax or 70% Urokon. The plain X-ray film is checked for correct positioning of the patient and a satisfactory exposure.

The patient is then anaesthetized with 2½% sodium pentothal given into one of the wrist or hand veins. The needle with its stylet in place is inserted at the lower edge of the twelfth rib, about 3–3½ inches to the left of the midline, and passed upwards, inwards and forwards until it strikes the body of a vertebra, which should be the eleventh or twelfth dorsal. The needle is then withdrawn a little and advanced along the antero-lateral edge of the vertebra. The stylet is then withdrawn and after advancing it carefully for another 0.5–1 cm., the resistance gives way and one has entered the aorta. The plastic tubing, with the syringe attached to it, is attached to the needle. At this stage there

should be a retrograde flow of blood into the tubing and the column of blood in it should pulsate; these signs indicate that the opening of the needle is within the lumen of the aorta. The contrast medium is then injected in 2 seconds and a film is taken as the last c.c. is leaving the syringe. The needle is then withdrawn rapidly and another film made about 4 seconds later to obtain a nephrogram. If the procedure is unsuccessful, 24 hours should elapse before it is repeated.

The procedure is very well borne by the patients—minimal anaesthesia is required and they are up and about within a few hours. Occasionally they complain of a pain in the lower part of the left chest and, less often, of pain in the left shoulder. The only contra-indications to performing it are iodine sensitivity and the presence of renal failure.

Translumbar aortography is very difficult in children and is often unsuccessful, probably because the aorta is more centrally situated in the dorso-lumbar region. The procedure has also been found to be more difficult in thin patients.

Arteriography in the Assessment of Renal Function

The procedure provides us with an excellent means of assessing the potential function of the kidneys. That a kidney is as good as its blood supply is an accepted fact, and by demonstrating this blood supply, one can judge the functional capacity of such a kidney. The demonstration of a satisfactory blood supply in a diseased kidney requiring surgery, provided that the disease process is not carcinoma or tuberculosis, will dictate a more conservative approach to the problem than might have been the case were an arteriogram not available. The procedure is a useful adjunct to the usual renal function tests, which are known to have their limitations and might even be misleading.

Renal Tumours

Aortography has proved to be a valuable aid in the diagnosis of renal neoplasms, and in the differential diagnosis between neoplasms and renal cysts.

In renal cell carcinoma (hypernephroma), there is increased vascularity in the affected area, with the characteristic 'pooling' or 'puddling' of the contrast medium resulting from its accumulation in the venous and arterial sinuses present in the tumour. This may be seen relatively early, and the cause of haematuria in the case with negative pyelographic findings has been shown to be due to the presence of a small tumour, often situated more peripherally. In some of these earlier cases, the 'pooling' may not be visible. In more advanced cases there may be spreading out of the intrarenal vessels with a spider-like appearance.

Carcinoma arising in the renal pelvis, on the other hand, does not result in any significant abnormality of the arterial pattern on arteriography. This negative finding may be useful in making the diagnosis of such a neoplasm where the pyelographic findings suggest that a renal tumour is present.

Solitary Renal Cyst

The soft-tissue swelling which may be seen on a plain X-ray film or the filling defect seen on pyelography, appears as an avascular area in the arteriogram. Not uncommonly, however, small vessels are seen coursing over the avascular area—these represent smaller arteries in the parenchyma overlying, or immediately adjacent to, the cyst. In some cases the vessels at the periphery of the cyst appear to have been spread out by the enlarging cyst, and appear to have a circular course. In contrast to renal cell carcinoma, 'pooling' is never seen.

Polycystic Disease

Aortography is not of much help in the diagnosis. The early stages do not result in easily visible arteriographic changes, whereas cases which will show abnormal appearances on the aortogram will have been diagnosed from the pyelogram. Changes, when present, consist of variable enlargement of the renal shadow, reduction in the number of terminal arteries with resultant avascular areas in the parenchyma, which may also be present in the nephrogram, and a general spreading-out of the arterial pattern.

Hydronephrosis

The renal arteriogram is a valuable aid in determining pre-operatively whether conservative or radical surgery will be indicated for a hydronephrotic kidney. If such a kidney is seen to have a poor blood supply and the opposite kidney appears to be satisfactory, nephrectomy is the procedure of choice, as in these kidneys with a poor blood supply pyeloplasty will not result in improvement of renal function. Cases with a satisfactory renal circulation, in whom the obstruction is satisfactorily dealt with, will show improvement in renal function.

The intravenous pyelogram in some cases may be misleading. It may show poor renal function, but if arteriography is carried out, some of these kidneys will be seen to have a satisfactory or good blood supply; conservative surgery is justified in these cases, especially if there is any question about the condition of the opposite kidney.

When pelvi-ureteric obstruction is found on pyelography and it is thought that an aberrant artery is the sole or contributing cause, the procedure will usually demonstrate such a vessel if it is present and patent; if the vessel is obliterated, as may occur, it will not be seen. The arteriogram is also of value in determining pre-operatively how much renal tissue will be sacrificed by division of such a vessel: if the vessel is large, a pyeloplasty with preservation of the vessel might be considered.

Renal Calculi

Where a kidney contains a staghorn calculus or multiple calculi, and there is impaired or absent function on the intravenous pyelogram, the arteriogram might demonstrate an adequate circulation and hence more conservative surgery might be considered; this is especially important when there is some question about the state of the opposite kidney.

When a calculus becomes impacted in the ureter and is impassable, an intravenous pyelogram may demonstrate absence of renal function of the obstructed kidney. Aortography in such cases will often demonstrate the presence of a good renal circulation, and removal of the calculus will be followed by a return to normal renal function. An arteriogram will also be useful in demonstrating the potential function of a kidney whose ureter has been accidentally ligated during pelvic surgery and where the intravenous pyelogram shows poor or absent function; the findings will influence the decision whether such a kidney will have to be removed or re-implantation of the ureter into the bladder will be worth while.

Widely useful in everyday practice

'DRINAMYL'

A balanced combination of 'Dexedrine' and amylobarbitone

Samples and further information are available on request. *'Drinamyl' is available in bottles of 25 tablets—each tablet contains 'Dexedrine' (dextro-amphetamine sulphate) 5 mg. and amylobarbitone (gr. ½) 32 mg.*

'Drinamyl' ameliorates mood and relieves inner tension in cases of mental and emotional distress, particularly where anxiety is a factor. It is invaluable in the treatment of mild neuroses, and for the alleviation of somatic symptoms that are without organic basis. 'Drinamyl' relieves the symptoms of depression and anxiety, stimulating mental activity, and restoring optimism and cheerfulness, and an interest in life.

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CONGENITAL ANOMALIES OF THE KIDNEYS

When operating on such anomalies as double pelvis, horse-shoe kidney, ectopic kidney or crossed renal ectopia, a pre-operative arteriogram is very helpful in demonstrating the number and position of the renal arteries and the length of the vascular pedicle; this knowledge will reduce the possibility of accidentally dividing the vessels and will make the operation easier.

The procedure is very useful in the diagnosis of renal hypoplasia; it may be the only means of doing so, as an intravenous pyelogram shows no contrast medium on the affected side, and the ureter frequently cannot be catheterized to obtain retrograde studies. The arteriogram will demonstrate a small renal artery with very small branches. The association of renal hypoplasia with hypertension in young individuals is the usual indication for these studies.

Renal agenesia can be proved or disproved by aortography—there is no evidence of a renal artery on the affected side.

In performing hemi-nephrectomy in cases of renal reduplication with some pathological process in one half, pre-operative arteriography will indicate a suitable avascular level for division of the kidney, making the operation easier and ensuring minimal interference with the blood supply to the remaining portion.

RENAL INFARCTION

Translumbar arteriography has been successful in making or confirming the diagnosis. The infarct may be single and large, or there may be several smaller ones. The arteriogram shows an abrupt termination of the affected artery or arteries, with a corresponding avascular area extending to the periphery of the renal cortex. The affected areas have been seen as filling defects in the nephrogram. There may also be indentation of the margin of the kidney at these points.

HYPERTENSION

Another use of the procedure is in the investigation of cases of hypertension to detect the possible presence of an ischaemic kidney of the Goldblatt type. If obstruction of a renal artery is diagnosed early so that the hypertension has not yet resulted in irreversible changes in the circulatory system, removal of such a kidney may be followed by cure in some cases. It has been stated by some that essential hypertension should not be diagnosed before a renal arteriogram is available.

The 2 commonest unilateral renal lesions found in cases with hypertension are atrophic pyelonephritis and hydronephrosis with secondary pyelonephritis and subsequent fibrosis. In both these conditions the arteriogram will be helpful in determining the degree of avascularity, and hence will result in better selection of cases for nephrectomy with consequent better end-results.

DISEASE OF THE AORTA AND ITS BRANCHES

Complete occlusion of the aorta has been seen in hypertensives and can be demonstrated by translumbar aortography. The block more commonly extends up to immediately below the level of origin of the renal arteries, and is thus not the cause of the hypertension and is compatible with life. If the thrombosis extends higher to occlude the renal vessels, this is a factor in the hypertension and death ensues.

Aneurysm of the abdominal aorta has been demonstrated clearly by the procedure; it is useful in assessing whether a pulsating abdominal mass is due to aneurysm or to a tumour with transmitted pulsation.

Aneurysms of the renal, splenic or iliac arteries can also be demonstrated.

Thrombosis at the bifurcation of the aorta involving one or both common iliac arteries together with the distal end of the aorta has been demonstrated by aortography. The syndrome produced by the occlusion was first described by Leriche, who found that bilateral lumbar ganglionectomy, with or without resection of the aortic bifurcation, gives good results. Other cases might show stenosis of the common iliac arteries, the affected area showing the presence of atherosclerosis. These patients have fatigue on walking with no sign of obstructive peripheral vascular disease—lumbar sympathectomy in such cases does not give good results.

Leriche, during investigations of impotent men, found that translumbar arteriography showed dilatation and tortuosity of the iliac arteries in 25% of men who were still young. Many of these were cured by bilateral lumbar block at the level of L2. Where the aortogram revealed the iliac arteries to be normal, lumbar block gave unsatisfactory results.

EXTRA-RENAL MASSES

The diagnosis of tumours or cysts of the spleen, adrenals, pancreas or lymph glands has been aided by arteriography. When these reach a size sufficiently large to impinge upon and to cause displacement of the aorta, they are usually accompanied by pulsation which might suggest aortic aneurysm, which can be excluded by the procedure. If the mass is due to an enlarged spleen, the splenic artery might appear larger than normal and will be seen passing into the mass; the arteriogram will at the same time exclude the possibility of the mass being renal in origin. In one arteriogram personally performed, an incidental finding was a small haemangioma of the liver, seen as an arborization of one of the terminations of the hepatic artery.

PLACENTA PRAEVIA

Translumbar arteriography has in some cases been successful in demonstrating the site of the placenta in suspected cases of placenta praevia, thus avoiding a vaginal examination. The procedure has resulted in no harmful effects on the patient or the foetus.

CONCLUSIONS

Translumbar arteriography is a most helpful diagnostic procedure, not difficult to perform and, for practical purposes, free from any risk to the patient, who tolerates it well.

The interpretation of an aortogram may at times be difficult, particularly as the procedure is to-day being used in a greater variety of conditions and more and more films are being seen.

However, it has already proved itself as a useful adjunct in the diagnosis of renal and other diseases, and it is by its more frequent use that its possibilities will become more

and more appreciated both by the urologist and the profession as a whole.

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QUESTIONS ANSWERED

TREATMENT OF POULTRY FLEA BITES

Q. A patient of mine who is a poultry dealer suffers severely from poultry flea bites.

(a) What prophylactic would you advise against them?

(b) What local treatment is best for the bites?

D.D.T. and other commonly used insecticides seem to be of no value.

A. Some people are more prone to insect bites than others. The degree of reaction varies from a small non-itchy macule to a large intensely irritating wheal, followed in some cases by a generalized papular urticaria. The *Dermanyssus avium* commonly called the red mite is the cause of this patient's rash. It normally feeds on poultry, pigeons, starlings, canaries, etc., but in the absence of its normal host it attacks man, producing an itching papular eruption on the exposed parts. The mites should be destroyed at their source, the nest and its environment, by the use of D.D.T. and benzene hexachloride either in powder form or as a water-soluble spray ('Gammatox', Double 'Benhex'). The patient should apply this to his shop fixtures and crates. Insect repellants such as citronella oil or dimethyl phthalate, 20% in ointment base, can be used on the skin. 12% Bals. Peru ointment is both an insecticide and cure for the rash.

Suitable treatment for the itchy bites consists of the use of soothing lotion such as alcohol or calamine lotion with ½% to 1% phenol or menthol or 3% camphor. Antihistamine ointments often give prompt relief. If the lesions are urticarial, antihistamines by mouth are indicated.

INCREDIBILIA

HOMELY HINTS FOR HARASSED HOUSEWIVES (HIPPOCRATIC DIVISION)

(From the South African Medical Journal, *22 October 1932, page 682.)*

PREPARATIONS AND APPLIANCES : BALL'S CHUTNEY

Ball's Chutney is already well known to laymen, but deserves to be better known to the profession. As a condiment, it possesses the quality of mildness, while at the same time it is sufficiently piquant to go with spiced dishes. It is a variety of the old Cape 'blatjang' sauce prepared from dried fruits, chillies and sugar, of a consistency similar to the blatjangs so popular some generations ago, and now, alas, unfortunately out of fashion. The sample sent us contains no deleterious ingredients, nor any added preservative that is likely to detract from its dietetic value. It has a good flavour, and blends particularly well with curries and ragouts, while it is also a useful condiment with avocado pears or with fish. Strained, this chutney should be of great value in convalescent dietetics, and it may also beneficially be used in children's diets, as it apparently contains a large amount of natural fruit juice combined with sugar. Its fibrous content is a little larger than that of ordinary chutney, approximating that of mango or lime chutneys, and it is further useful in cases of constipation. We have confidence in recommending Ball's chutney as a locally made foodstuff of great purity and undoubted excellence.

NEW PREPARATIONS AND APPLIANCES

CREMOTRESAMIDE

Sharp & Dohme announces the release of a palatable suspension of triple sulphonamides. Each teaspoonful (5 c.c.) of 'Cremotresamide' contains:

Sulphamerazine	0.1 gm.
Sulphadiazine	0.2 gm.
Sulphacetamide	0.2 gm.

'Cremotresamide' is a creamy, pleasantly flavoured suspension of triple sulphonamides. 'Cremotresamide' in therapeutic doses results in high blood levels but rapid and complete excretion reduces to a minimum the dangers of crystalluria.

Sulphacetamide rather than sulphathiazole has been included in the formula because of the relatively high incidence of toxic reactions following sulphathiazole therapy (18%).

'Cremotresamide' is indicated in the treatment of pneumococcal, meningococcal, gonococcal and haemolytic streptococcal infections as well as in erysipelas, acute respiratory infections, and bacterial infections of the urinary tract.

Dosage: *Adults.* Two tablespoonsful initially and then 2 teaspoonsful every 4 hours.

Infants up to 6 months: 1½ teaspoonsful initially and then ½ teaspoonful every 6 hours.

Children ½ to 3 years: Three teaspoonsful initially and then 1 teaspoonful every 6 hours.

Children 3 to 10 years: Two tablespoonsful initially and then 2 teaspoonsful every 6 hours.

Caution: In the foregoing dosage one teaspoonful is taken as equivalent to 5 c.c. and one tablespoonful to 15 c.c. Attention is called to the potential error with household units as teaspoons may vary as much as 4 to 7 c.c. and tablespoons 15 to 22 c.c. Use of a medical spoon or medicine glass is recommended.

As regards fluid intake, the usual precautions employed in sulphonamide therapy should be observed, particularly in the case of the very young and older patients.

ASSOCIATION NEWS : VERENIGINGSNUUS

THE STATUS OF GENERAL PRACTICE*

DR. G. ALABASTER

I have chosen the subject of General Practice for my valedictory address, because it is one at present to the fore both in this country and in England, where there has been much talk of the foundation of a College of General Practitioners.

General Practice is the original stem from which much of the best that is in the profession of Medicine has grown. That it has flowered into a lot of specialities of recent years, has been a little exhausting for that stem. The flowers of specialism have rather taken the sap out of it and, by their sweet scented and often highly coloured appeal to the public, led to a disregard of the vital matter of the flow of sap in the stem itself. One cannot have a healthy plant without a healthy stem—General Practice needs fostering. It needs cultivating. We must take thought of how to deal with parasitic influences which have been allowed to detract from its strength and standing.

What is there that is so vital about General Practice? It is in essence the humanizing of science. It is the veritable stuff of which good doctoring is made.

Sir Oliver Lodge, whom I remember as a profoundly impressive old man, used to say that Science would lead to human destruction unless morality kept pace. This was a truth which has since been enunciated by others. It is certainly one to which modern life is witness. The significance of that remark, in regard to science, is paralleled by the significance of General Practice in relation to medicine, which Osler has laid down to be an art and not a science. In so far as a specialist has experienced or retained knowledge of General Practice his opinion is of truer value. When the patient walks into the consulting room of, say, an orthopaedic surgeon, without other preliminary consultation, he has made an assignation which has labelled him and which has predetermined the nature of approach to the case. After a few inquiries into the mechanics of strain and stress, he will be told to strip and out will come the tape measure. Suppose he has backache. Backache is a large subject and I believe a good one for my example, for it is one that can have a variety of explanations, not all of them even nearly within the orthopaedist's sphere of thought. It can often depend on a muscular tone failure and that can depend in turn on a variety of circumstances.

You are all, except Dr. Leslie, familiar with the effects of playing golf badly; the tiredness which comes from bad play and the disinclination for another round which may arise from it. That is the influence of mind on muscle; it may be that a chemical influence derived from thought process affects muscle tone, for there are other influences from such thought-derived chemistry—notably the vagal effect on gastric juice caused by worry or overwork, and the blush of shame which I assure you was at one time a reality although you never see it to-day.

To return to our backache subject, supposing definite organic disease to be absent, various underlying causes of muscle fatigue can contain the essential truth. Inadequate income for example (which a too high consultation fee will not help); domestic trouble; too long hours; too little sleep; too little food; too much motoring and too little walking; too much emotional stress. Any of these may count. There are disturbances of which the General Practitioner is far more aware than the Specialist, because he is of the stem of the profession and because from him the patient has from all time wanted relief, even before definite diagnosis was ever thought of. The patient in relation to his life; in relation to his home; in relation to his living—those are assessments that cannot be learned as well anywhere as in General Practice. There is the vital importance of the stem. Talking this over with my wife, she made the suggestion that the Specialist should always *have* to work with a General Practitioner. That seemed to me a sound idea and one which might be most usefully inquired into. I venture to state that nobody has such knowledge of human nature as the experienced General Practitioner. There are Specialist Hospitals as well as Specialist Practitioners and if a girl with a laryngitis who has missed a few periods walks into an Ear, Nose and Throat Hospital, it is difficult to believe that the inquiry and treatment will be identical with those which would be made at a Maternity Hospital.

For a year I ran a Maternity Clinic for the L.C.C. I can still remember the enormous forms which needed detailed completion. By some quaint coincidence the foetal heart had been forgotten and there was no room for the suggestion that the baby was really dead.

Having myself grown up with the elasticity of General Practice in my nature, I hated the rigidity of that form. I remember talking of it to Rice Oxley, one of the original 5 who compiled the first British Maternal Mortality Commission's Report, himself a General Practitioner.

I said, 'What do you think of the L.C.C. Maternity form?' 'Oh,' he said, 'I think the best form is a piece of blank paper.'

And this has brought me to another aspect of General Practice deserving your attention.

The subject of childbirth. I do not think there is any department of medicine which has been so distorted by specialism. At enormous cost, and in many countries, midwifery has been hospitalized by press-fed panic and uncritical emotion.

The General Practitioner, too busy to trouble to defend himself, has been told of his incompetence without reply. He has been ousted from above by the Specialists and from below by the midwives, and has allowed the reduction of death and infection in maternity work to be regarded as the fruit of his dismissal. This is a catastrophe. Masks, sulphonamides and antibiotics have had an enormous influence which is not really dependent on hospitalization.

Little attempt has been made to get the best out of domiciliary midwifery, which could equally have been improved by these assets; and further much strengthened by the employment of a second doctor for anaesthetic administration, where necessary, and the supply of sterilized drums of dressings from a municipal source.

The General Practitioner has and still is being brow-beaten out of midwifery because he has not stood up for hiraself.

And what are the results of our hospitalized midwifery to justify the enormous expenditure of money upon them?

Well, it is difficult to sum them up but they include the production of:

1. Mothers who cannot feed their children (4-hourly feeds are Nursing Home conveniences).
2. In the case of private Nursing Homes a bill which can be an effective contraceptive among the intelligentsia.
3. Husbands with dislocated homes coping with the other child.
4. A boom in the cellophane flower trade.

Many years ago Matthew Hay of Aberdeen, who was M.O.H., undertook an inquiry into which was the more septic arena for maternity work—the private house or the hospital. He came to the conclusion that booked cases in hospital had a higher sepsis rate. Modern doctors have learnt to prefer Nursing Homes because of their telephonic convenience and their tea and biscuits, but I think we have experience to justify the remark that when a General Practitioner has managed to retain in theory the management of a midwifery case, he still has to work in an atmosphere questioning if not scornful and, unless he has strength to withstand it, some danger of pressure from the bedside by the midwife.

To sum up, General Practitioners must stand up for them-

* Valedictory address at the Annual General Meeting of the East London Division of the Medical Association of South Africa held on 6 December 1952.

selves. Much of the criticism to which they have been submitted has arisen from press distortion and self-exaltation of Specialism. The establishment of Specialist Registers should have been resisted in South Africa. They are not true to the stem on which they have been grafted. Far better that a doctor's reputation should rest with his colleagues on the foundation of ability and that that should decide what comes his way.

In my own experience there are as many bad Specialists as bad General Practitioners, but the public believes all to be gods (not always to be sued in prayer, it is true) and the General Practitioners have accepted obloquy without complaint.

That is the the prime mistake. Stand up for yourselves! Do what you can do and don't sit down like a lot of children and be told to behave. You are grown men, rich in experience and so have truer basis for critical judgment than any little flower which has bloomed on the great stem of medicine.

The captain of a ship has control of all the specialists on board. The General Practitioner, who used to choose his patient's technical adviser with a knowledge and critical distinction the patient has not got, has lost caste through tolerance of the direct application of the patient to the Specialist. The sound practice of consultation has been unquestionably damaged by the display of specialist plates and the creation of Specialist Registers.

PASSING EVENTS

An international competition for an unpublished article on the rheumatic diseases has been arranged under the patronage of the *Società Italiana di Reumatologia*.

The prize is 1,000,000 lire. The competition is open to all medical practitioners and articles may be submitted in Italian, French, English, Spanish and German. The closing date is 31 January 1954. Further information can be obtained from the Azienda Autonoma di Cura-Acqui, Piemonte, Italy.

* * * *

The address of the Nuffield Foundation, South African Liaison Committee, is now c/o University of the Witwatersrand, Milner Park, Johannesburg. Dr. Jackson, of the University staff, has agreed to undertake the duties of Honorary Secretary *vice* Mr. A. E. Makin. The new telephone number is 44-3781, extension 203.

Transvaal Golfing Society of the Medical Association

Entries are invited for Competitions to be held at the Maccauvlei Golf Course on Saturday afternoon, 18 April, and the whole day Sunday, 19 April 1953, for the following Cups:

18 April (Saturday)

1. Rodger Cup: 18 holes Medal.

19 April (Sunday Morning)

2. President Cup: 18 holes Point Stableford.

19 April (Sunday Afternoon)

3. 4-Ball—Better Ball: 18 holes Point Stableford.

Ladies' Section: 18 April (Saturday)

1. 18 holes Medal.

19 April (Sunday Morning)

2. 18 holes Point Stableford.

19 April (Sunday Afternoon)

3. 4-Ball—Better Ball: 18 holes Point Stableford.

A Dance will be held at the Club on Saturday evening.

Further particulars and entry forms can be obtained from Dr. W. F. Scott, 34 Lister Buildings, Jeppe Street, Johannesburg.

REVIEWS OF BOOKS

Carbohydrate Metabolism

Carbohydrate Metabolism. Edited by Victor A. Najjar (Pp. 134 + vi with figures. $4.00) Baltimore: The Johns Hopkins Press.

Contents: Preface. 1. Enzymatic Synthesis and Molecular Configuration of Glycogen. 2. Factors Affecting Liver and Muscle Phosphorylase. 3. Studies on Glycogen Disease with Report of a Case in which the Glycogen was Abnormal. 4. Pituitary Inhibition of Glucose Uptake by the Muscle. 5. Factors Affecting the Metabolism of Glucose and Pyruvate, *in vitro*. 6. Spontaneous Hypoglycemia: Clinical and Metabolic Studies. 7. Some Observations on the Interrelationship of Potassium Metabolism and Carbohydrate Metabolism in the Isolated Rat's Diaphragm. 8. The Therapeutic Implications of Disturbances in Water and Electrolyte Metabolism in Diabetic Acidosis. 9. Summary. Index.

This book is the substance of the proceedings at a symposium on carbohydrate metabolism attended by a large number of American scientists and clinicians. The objective was not for the scientists to illuminate each other but to interpret their discoveries for the benefit of those who will have to apply them in practice.

At the time of its discovery insulin was expected to provide a key to all the problems of carbohydrate metabolism. This hope was not realized and it is 30 years later that a fairly complete account can be given of the succession of enzyme systems and of the balance of hormones and ions which operate together in its regulation.

This book gives this information clearly and painlessly, and proceeds to sketch in the mechanisms involved in such disturbances of carbohydrate metabolism as von Gierke's disease and the various forms of hypoglycaemia. It concludes with a sketch of the disturbances of electrolyte balance in diabetic coma and their rectification, but the few pages devoted to this can obviously be no more than an introduction to a very large field.

Insecticides

Expert Committee on Insecticides—Third Report. World Health Organization Technical Report Series No. 46. (Pp. 36. 2s.) Geneva: World Health Organization. August 1952.

The third report of the WHO Expert Committee on Insecticides, which has been published as No. 46 of the World Health Organization *Technical Report Series*, is devoted in general to the consideration of apparatus used for the spraying of insecticides.

It provides—and for the first time—a nomenclature of apparatus and their various parts. This list of exact definitions is not only useful in itself but also facilitates understanding of the rest of the report, which deals with specifications applicable to particular spraying apparatus: hand-activated dusters, stirrup-pump-type sprayers, etc. The report also establishes standard specifications for the accessories—in particular, cut-off valves and clamp-type hose connexions.

Annexes contain descriptions of durability and performance tests. In view of the increase in the use of mechanically operated compressors for spraying, the committee has also given a selection of comparative data on the efficiency of manual as against mechanical compression sprayers.

The report includes a comparative table which makes it possible to determine whether the sprayers at present on the market coincide with the specifications established by the committee.

This attempt to standardize the technical terms and expressions used to describe spraying equipment should be of particular interest to specialists. Furthermore, the report provides manufacturers with carefully studied specifications to which it would be in their interests to adhere, and users are given valuable and even indispensable information.

PUBLIC HEALTH AIDS

Aids to Public Health. By Llywelyn Roberts, M.D., M.R.C.P., D.P.H. Seventh Edition. (Pp. 313 + xiv, with 5 diagrams. 7s. 6d.) London: Baillière, Tindall & Cox. 1952.

Contents: 1. A Short History of Public Health. 2. Vital Statistics. 3. Infectious Diseases. 4. Disinfectants and Antiseptics. 5. Food and Nutrition. 6. Water Supply. 7. Disposal of Refuse and Excreta. 8. Housing and Hospitals. 9. Ventilation, Heating and Lighting. 10. Maternity and Child Welfare. 11. The School Child. 12. Care of the Worker. 13. Personal Hygene. 14. Atmospheric Conditions and their Effects. 15. Port Health Authorities. 16. Disposal of the Dead. 17. Sanitary Administration and the Openings in the Public Health Services. Appendixes I, II, III, IV, V, VI, VII, VIII and IX. Index.

STATISTICS, GENETICS AND PSYCHIATRY

Genetic Statistical and Psychiatric Investigation of a West Swedish Population. By Torsten Sjögren. (Pp. 102. 15 Danish Crowns.) Copenhagen: Einar Munksgaard.

Contents: 1. Introduction. 2. Material and Methods. 3. The Extent of the Material and the Grouping. 4. Frequency of Psychosis and Oligophrenia in the Population. 5. Account of the Material and Discussion of its Homogeneity. 6. Hospitalization. 7. Consanguinity Between the Parents in the Psychotic and Oligophrenic Families. 8. Calculation of the Morbidity Risks. 9. Expectation of Mental Disorders for the Population of Åbo. 10. Expectation of Mental Disorders for the Siblings and Parents of the Probands. Summary. References. Pedigree Chart.

This is a most interesting article for psychiatrists, and especially those interested in genetics. The article contains a wealth of information but needs careful reading and hard study to be grasped fully.

The introduction itself is interesting from the point of view that all cases of mental disorders and mental deficiency are notifiable. The laws relating to this proceeding and how it is controlled is worthy of study as there is no estimate even of the occurrence of these conditions in this country.

If this type of work is correlated with the newer methods of electroencephalographic studies which have been evolved recently, great progress could be made. It is, however, a study probably of interest to the psychiatrist and geneticist only at this stage.

MENTAL HEALTH

Mental Health and the Psycho-Neuroses. By J. A. Hadfield, M.A., M.B., Ch.B. (Pp. 176 + vii. 10s.) London: George Allen and Unwin.

Contents: 1. Introductory. The Scope of Mental Health. 2. Types of Character Traits and Delinquency. 3. The Psychoneuroses Biologically Considered. 4. General Aetiology of the Psychoneuroses. 5. Psychosomatic Disorders. 6. Traumatic Neurosis. 7. Hysteria. 8. Anxiety States. 9. Anxiety Hysteria. 10. Obsessional Neuroses. 11. Clinical Obsessional Types. 12. Disorders of Personality. 13. Sex Perversions and Aberrations. 14. Clinical Types of Sex Disorders. 15. Technique and Treatment.

This book is an abridged edition of the author's larger and more comprehensive work *Psychology and Mental Health.*

It deals with the psychoneuroses and behaviour disorders in a convincing, lucid and common-sense manner that will appeal to the student, the intelligent layman and the medical practitioner for whom it is especially intended.

In discussing the general aetiology of the psychoneuroses, Dr. Hadfield emphasizes the difference between his views and those of the established schools of psychotherapy. He points out that Freud identified sex and love, for he states that by sex he means all that we can include under the word love, making both terms synonymous, and that according to the Freudian formula, the psychoneuroses are due to repressed sexuality. Dr. Hadfield contends that love is not merely sexual; it is protective as well as sexual. The need for protective love and security is of far greater importance in the development of the psychoneuroses than the sexual. He states that in his experience the basic cause of the psychoneuroses is a feeling of deprivation of love, the repressed craving for love, and this expresses the difference between the author's ideas and those of Freud.

In developing this thesis, he states that the human infant is far worse off than the insect, more incapable of meeting the dangers of life and more liable to develop abnormal responses, which is why the human being is so much more prone to nervous breakdown than the lower animals and why neurotic disorders are so much more prevalent in the human compared with other animal species; he claims that protective love is therefore the greatest need of the child—both biologically and psychologically, and that the deprivation of love, with the consequent feeling of insecurity, is the main cause of disaster.

Dr. Hadfield considers that the conflict between the natural self and the moral self is the basic conflict in all the psychoneuroses, and the nervous breakdown is the refusal of the natural self to conform any longer to the too rigid demands of the conscience or super-ego. He maintains that there would not have been this present-day moral conflict were it not for the experiences of the past, and he considers that the most effective means of dealing, even with the present-day problem, is to discover its deep-seated causes in childhood, thus eradicating the complexes from which the present problems spring. An understanding of these predisposing causes in childhood is of the greatest importance for the prevention of the psychoneuroses.

In the second chapter, dealing with the types of character traits and delinquencies, his definitions of temperament, personality, disposition and character are well put and lead to the consideration of normal and abnormal personalities and the clinical classification of character traits—normal and psychoneurotic—that parents, educationalists and social workers will find extremely useful.

Although this little book is written in plain language and technical terms are not used without explanation, those advised to read this book will not be able to escape from the realization that the problem of the neuroses is of necessity complex and intricate. If this fact is accepted and the reader is not disappointed in not finding a ready answer to the problems of his neurotic patients, he will, in future (after perusal of this valuable little book on the neuroses) be better able to handle his difficult psychological cases in practice with an understanding, a tolerance and an objectivity that will make his work a pleasure instead of a burden.

PROBLEM CHILD

One Little Boy. By Dorothy W. Baruch. (13s. 6d.) London: Victor Gollancz Limited. 1953.

The dust jacket of this volume quotes the American *Saturday Review of Literature* as follows: 'The most searching inquiry into the mind of a child requiring psychotherapy I know of.'

Dr. Baruch, a clinical psychologist, with the medical collaboration of her husband, Hyman Miller, M.D., skilfully recounts the clinical case history of Kenneth, aged 7 years, over the course of approximately 2½ years.

The psycho-analytic bias in much of the interpretation will not find favour with all. Nevertheless, for all those interested in children with problems and in helping such children, this book provides worth-while reading, guidance and instruction.

PAEDIATRICS IN GENERAL PRACTICE

Pediatrics in General Practice. By James G. Hughes, B.A., M.D. (Pp. 735 + xiii, with 178 figures. $14.00.) New York, Toronto, London: McGraw-Hill Book Company, Inc. 1952.

Contents: 1. The Newborn Infant. 2. Infant Nutrition. 3. Nutritional Disturbances. 4. Problems of Fluid and Electrolyte Balance. 5. The Gastrointestinal Tract. 6. The Respiratory System. 7. The Urinary Tract. 8. The Cardiovascular System. 9. The Blood. 10. Immunization. 11. Common Infectious Diseases. 12. Psychologic Aspects of Childhood. 13. The Nervous System. 14. Allergic Diseases. 15. The Thymus Gland. Index.

To produce another modern textbook of paediatrics is indeed a brave venture. The author, though well aware of the many excellent reference books in this field, felt that there was a need for a more condensed and practical manual written specifically for the general practitioner. The care of infants and children comprises a large part of general medical practice. The subject of paediatrics is a particularly wide one and in recent years many new developments have taken place. As paediatric textbooks have grown ever bulkier with increasing technical detail and with the extent of special knowledge, so has authorship grown more multiple. The task of omission and condensation is no easy one, and requires long technical experience and fine discrimination. Professor Hughes has succeeded admirably in this respect.

With a view to the needs of general practice emphasis is

laid on the commoner conditions with briefer mention of rarities.

Diagnosis and treatment are dealt with in a clear and practical way and academic speculation avoided wherever possible. In a volume of this limited scope, dogmatism and over-simplification are unavoidable on occasion. The author's views, however, are balanced, up to date and consistently based on personal experience. One would paticularly commend the section dealing with management of the infant and infant feeding.

A lengthy bibliography is appended to each chapter but in unusual consideration for the general practitioner, references are almost exclusively confined to recent years and to 5 standard American journals.

One can strongly recommend this book to practitioners.

Ear, Nose and Throat Diseases

Diseases of the Ear, Nose and Throat, Volumes I and II. Ed. by W. G. Scott-Brown, *C.V.O.*, M.D., B.Ch., F.R.C.S. (Pp.: Vol. I: 756; Vol. II: 639. £9 per set of 2 volumes.) London: Butterworth & Co. Limited. 1952.

Contents: *Volume I. Part. I.* Nose and Paranasal Sinuses. 1. The Nose, Nasal Cavity and Paranasal Sinuses. 2. Physiology of the Nose and Paranasal Sinuses. 3. External Nose and Nasal Vestibule. 4. Malformations, Atresia and Fracture of the Nasal Bones. 5. Nasal Septum. 6. Plastic Surgery of the Nose and Ear. 7. Acute Rhinitis and Rhinorrhoea. 8. Chronic Inflammations of the Nose. 9. Allergy. 10. Sinusitis. 11. Special Considerations of Individual Sinuses. 12. Complications of Acute and Chronic Sinusitis. 13. Sinusitis in Children. 14. Diseases of the Lacrimal Sac and Duct. 15. Neoplasms of the Nose and Paranasal Sinuses.

Part II. Pharynx and Nasopharynx. 16. Pharynx and Nasopharynx. 17. Physiology of Deglutition. 18. Pharyngitis—Acute and Chronic. 19. Mouth and Tongue. 20. Pharyngeal Lesions Associated with General Diseases. 21. Acute and Chronic Tonsillitis. 22. Tonsils and Adenoids in Chidren. 23. Neoplasms of the Nasopharynx, Oropharynx and Tonsils.

Part III. Larynx. 24. The Larynx. 25. Physiology of the Larynx. 26. Methods of Examining the Larynx. 27. Speech Defects and their Treatment. 28. Nervous Diseases of the Larynx. 29. Acute Diseases of the Larynx. 30. Chronic Non-Specific Laryngitis. 31. Chronic Specific Laryngitis. 32. Trauma, Stenosis and Benign Tumours of the Larynx. 33. Malignant Growths of the Larynx. 34. Intubation, Tracheotomy and Laryngotomy. 35. Anaesthesia. Index to Both Volumes.

Volume II. Part IV. Ear. 1. Anatomy of the External, Middle and Internal Ear. 2. Physiology of the Hearing. 3. Methods of Examination. 4. External Ear. 5. Inflammations and Neoplasms of the Middle Ear. 6. Acute Mastoiditis. 7. Petrositis and Labyrinthitis. 8. Chronic Mastoiditis. 9. Actiology and Pathology of Complications of Otitis Media. 10. Clinical Aspects of Meningitis. 11. Thrombophlebitis and Otogenic Brain Abscess. 12. Injuries to the Ear and Facial Nerve. 13. Ménière's Disease. 14. Otosclerosis. 15. Perceptive Deafness. 16. Deafness in Children. 17. Hearing Aids.

Part V. Oesophagus and Bronchial Tree. 18. The Anatomy of the Oesophagus. 19. Physiology of the Oesophagus. 20. Symptomatology and Examination in Oesophageal Disease. 21. Stricture, Inflammation and Foreign Bodies of the Oesophagus. 22. Congenital and Spasmodic Conditions and Diverticula of the Oesophagus. 23. Oesophageal Growths, Benign and Malignant. 24. Anatomy of the Trachea, Bronchi and Lungs. 25. Physiology of the Trachea and Bronchi. 26. Bronchoscopy. Index to Both Volumes.

The publication of these 2 volumes, contributed to by many distinguished Ear, Nose and Throat Surgeons, is a welcome advance in the study of an interesting and at times formidable subject.

This new work is probably one of the most detailed yet to be published. Not only have the commoner diseases of the ear, nose and throat been brought up to date, but the rarer conditions have also been fully described. Anatomy, physiology and pathology also fully occupy their rightful places, while treatment (including operative procedures) is dealt with in considerable detail.

It is pleasing to note that a section on the respiratory system has also very properly been included. Broncho-pulmonary segments are described and illustrated. Recent advances in anaesthesia, methods of examination and descriptions of instruments for the examination and treatment of diseases of the bronchi and lungs are all dealt with.

The problem of choice of treatment of malignant disease of the larynx has been extremely well described. The methods used, whether surgical, radiotherapeutic or a combination of both, have been set out concisely, and should prove to be of great help.

Largely as a result of the last war and the accidents accompanying our age of mechanization, remarkable strides have been made in reconstructive surgery, and an interesting section will be found to be that dealing with the plastic surgery of the nose and ears and the restoration of facial contour.

The problem of deafness has been gone into fully—an up-to-date analysis of all the causes being well set out. Some of the drugs listed under toxic deafness would probably provide a certain amount of food for thought when it is considered that a large number of them are freely used by the public.

This work, while providing sufficient detailed matter for post-graduate study, should also be a suitable reference book for general practice. It cannot be too highly recommended.

Psychology for the General Practitioner

Psychology: The Study of Behaviour. By William McDougall. 2nd ed. (Pp. 191 + xix. 6s.) London and Cape Town: Oxford University Press. 1952.

Contents: 1. The Province of Psychology. 2. The Study of Consciousness. 3. The Structure of the Mind. 4. The Methods and Departments of Psychology. 5. The Study of Animal Behaviour. 6. The Study of Childhood, and Individual Psychology. 7. Abnormal Psychology. 8. Social Psychology. Bibliography. Index.

This book, which has been in constant demand since its first appearance in 1912, is now available in a new edition in *The Home and University Library series.* A long and comprehensive introduction by Sir Cyril Burt adds to its interest and value.

Those desirous of finding, in a short space of time, a first general picture of what psychology is about, what kind of problems it investigates, what methods it adopts, and what broad conclusions it has reached, can still select no better introduction.

Medical Psychology

A Textbook of Medical Psychology. By Ernest Kretschmer, M.D. (Pp. 352 + xvi. 30s.) London: The Hogarth Press. South African Representative: Heinemann & Cassell, S.A. (Pty.) Limited, Cape Town. 1952.

Contents: *Part I.* The Chief Psychic Functions and their Anatomical and Physiological Basis. 1. The Nature of the Soul (Psyche). 2. Sensory Impressions and the Construction of the Perceptual World. 3. The Cerebral Cortex and the Mnemic-Associational Functions. 4. Psychomotility and the Subcortical Centres. 5. The Central Functions of the Psyche and the Autonomic and Endocrine Systems.

Part II. The Psychic Apparatus and its Evolution. 6. The Evolution of the Psyche. 7. The Hyponoic Mechanisms. 8. The Hypobulic Mechanisms.

Part III. Instinct and Temperament. 9. The Instincts and their Metamorphoses. 10. The Temperaments.

Part IV. Personality and Reaction Types. 11. Intelligence and Character. 12. Experiences. 13. The Primitive Reactions. 14. Personality Reactions.

Part V. Practical Medical Psychology. 15. Medical Reports and Note-Taking. 16. Psychotherapy. References. Index of Subjects.

This book is a translation from the 10th German edition of Professor Kretschmer's work. He has included new contributions in the medico-psychological field such as a full description of Hess' experimental work on the hypothalamic centres governing the life of the instincts.

The author's own system of psychotherapeutic procedure is also fully explained and he stresses the need for every general practitioner to practice psychotherapy, whether or not he so desires. This chapter on psychotherapy, giving in broad outline the long-accepted methods such as hypnosis, suggestion, analysis, re-education, persuasion and habituation, may prove useful to those interested in obtaining a bird's eye view of the subject.

Drug Therapy: 1952

The 1952 Year Book of Drug Therapy (August 1951—August 1952). Edited by Harry Beckman, M.D. (Pp. 606. $5.50.) Chicago: The Year Book Publishers, Inc. 1952.

Contents: 1. Allergy. 2. Antibiotics and Sulfonamides. 3. Cardiovascular Diseases. 4. Dermatology. 5. Endocrinology. 6. Hematology. 7. Internal Medicine. 8. Neuropsychiatry. 9. Obstetrics and Gynecology. 10. Ophthalmology. 11. Otorhinolaryngology. 12. Pediatrics. 13. Surgery. 14. Venereology. Index.

The *Year Book* series needs no introduction or recommendation. Fourteen volumes are available annually to assist general physicians and specialists in keeping pace with the world-wide advances being made in the various medical sciences.

In this particular volume the literature on new diagnostic and therapeutic procedures involving the use of drugs has been reviewed selectively and abstracted; the period covered is August 1951 to August 1952. As in previous issues, tables, graphs and illustrations from the original articles are plentifully reproduced. Useful practical hints and criticisms are given in the editorial comments on good and bad articles. It need hardly be mentioned that information on the newer drugs such as hydrocortisone, daraprim, polymyxin, isoniazid, methonium salts and numerous others will be found in this book; newer points about older drugs are also in abundance.

Among special points selected for comment in the introductory editorial note are the reports on rapidly spreading pulmonary tuberculosis in association with ACTH or cortisone therapy, the development of resistant streptococcus and staphylococcus strains arising from the use of the broad-spectrum antibiotics, the special dangers with chloramphenicol, pronestyl, tromexan; among new treatments is the use of Hetrazan for roundworms, mepacrine for tapeworms, and methimazole as antithyroid drug. Senior students, physicians, post-graduates and research workers should all look into this book.

CORRESPONDENCE

ONYALAI AND ITS TREATMENT

To the Editor: Onyalai is a bleeding disease which occurs in Africans. The exact etiology is still obscure, but the clinical manifestations are well known.

Clinically the disease is characterized by haemorrhagic vesicles which occur in or on the mucous membranes, and may be seen in any part of the body, though the mouth and nose are the common sites. There is epistaxis, bleeding from the mouth, and from other orifices in some cases. Thus one is familiar with haemoptysis, haematemesis, haematuria, vaginal bleeding, metrostaxis and even bleeding from the penis. One has seen the characteristic haemorrhagic vesicles *post mortem* in the bronchial tree, in the bowel, in the renal pelvis and in the vagina. The severity of the case seems to be independent of the site at which haemorrhage occurs, and one has seen cases showing haematuria and haemoptysis recover, while patients bleeding only from the mouth and nose have died. In the individual case the number of vesicles varies, and again there is no absolute correlation between the severity of the disease and the number of vesicles visible.

Haematological investigations are interesting in this disease. Most observers have recorded low platelet counts or even complete absence of platelets. My own observations have not invariably shown the platelet count to be low, and I believe that in this disease, at least in some cases, there may be more of an absent platelet response than a thrombocytopenia. Further work on this aspect is in progress, and one needs a very large series of cases to reach any definite conclusions.

In onyalai I have consistently found the coagulation time of the blood normal, but the bleeding time has always been prolonged. Therefore I believe onyalai to be a state of pathological capillary fragility, the exact origin being still obscure. I have based my treatment on this hypothesis, and the results have been so much better than those obtained previously that I have decided to publish the treatment, so that other observers may also try this method. It is only by treating a large number of cases that one can reach conclusions about the value of a treatment.

Treatment. On first coming into contact with these cases, I followed the advice of others, and treated onyalai with calcium injections, vitamin K injections and auto-haemotherapy. In severe cases blood transfusion was given. Vitamin C by the mouth or by injection was the rule. As investigations progressed, it seemed irrational to give substances which reputedly control haemorrhage when in these cases the blood coagulability was normal, and the lesion if anything was a capillary defect. I believe onyalai to be an allergic manifestation, the allergy expressing itself by increased capillary fragility. Therefore, when the antihistamine drugs came into common use, I combined these with other medication in the treatment of this disease.

The antihistiminics used were mepyramine (Anthisan) and promethazine (Phenergan). The programme is as follows:

1. Adrenaline is given by injection twice a day for 2 or 3 days or longer, depending on the clinical response. Dosage varies according to age, with 12 minims as the maximum single adult dose.

2. Mepyramine or promethazine is given, twice or thrice daily, also depending on the severity of the case. Antihistaminics are continued daily for 5–7 days. No other treatment is given, except an iron mixture for the anaemia, and the routine toilet of the mouth is performed.

Results. Twenty consecutive cases of onyalai admitted to hospital have so far been treated without a single fatality. Cure has been rapid and clinical improvement prompt and sustained. Before the adoption of this method, in my experience the disease carried a 30% mortality.

In the literature available to me I cannot find any reference showing that this treatment has been used before in this disease.

Thanks are due to Dr. M. L. Freedman, *O.B.E.*, Director of Medical Services, Bechuanaland Protectorate, for permission to publish this note.

W. E. Laufer,
Medical Officer.
Medical Service,
P.O. Box 38,
Francistown,
Bechuanaland Protectorate,
2 February 1953.

WHOOPING COUGH IMMUNIZATION

To the Editor: It is with interest that I read in the *Journal* of 24 January the letter written by Dr. H. T. Philips on the subject of whooping cough immunization.

During the past 6 months we have had a more than usually severe epidemic of whooping cough in this district and have been very disappointed in the effects, or should one say non-effects, of the immunization.

During this epidemic we treated some 30 European and 200 Native children here. Every one of the European children received a full course of whooping cough-diphtheria immunization and in 2 cases the children had been immunized separately against the 2 diseases.

Further, in no way were the symptoms produced by these children minimized and no child responded in any way to the antibiotics, although we tried Terramycin, Aureomycin and Chloromycetin, each separately and in an experimental capacity. There was no difference in the symptoms between children treated with the antibiotics and the children who received no treatment.

One boy aged 7 received his immunization as a baby, and had been treated by me 2 years ago for an attack of whooping cough; in the recent epidemic this boy had one of the most severe attacks seen in this village.

Because of the large number of Native children who were developing the disease, we attempted to do large-scale immunization amongst the Natives. In not one single case did we prevent the whooping cough from occurring.

I should like to finally add that the only type of treatment found to alleviate symptoms was the therapeutic whooping cough vaccine. In over 95% of cases given these injections there was a marked improvement, and even in patients who had been ill for months there was a response.

Whether or not the bacteria in this particular epidemic were of some different strain is unknown, but unfortunately our findings were quite different from those of Dr. Philips.

Margaret Barlow.
P.O. Box 1,
Lusikisiki,
Transkei.
3 February 1953.

REGISTERED MEDICAL AUXILIARIES AND MEDICAL PRACTITIONERS

To the Editor: I am directed by the Auxiliaries Committee of my Council to request you to bring the undernoted matter to the attention of members of the profession through the medium of your esteemed *Journal*.

The Council maintains voluntary registers for various classes of auxiliary personnel, e.g. for masseurs, physiotherapists, radiographers, optometrists, orthopaedic mechanicians and surgical appliance makers, medical technologists, health and food inspectors, diagnostic radiographers, speech therapists, dietitians, orthoptists, occupational therapists, chiropodists.

Registered auxiliary personnel accept voluntarily the Council's ethical rules which restrict their practices in many respects. The rules regarding the conditions under which the various categories of personnel may carry on their calling require *inter alia* that a registered person shall not

(a) undertake any work in his profession except under the direction and control of a registered medical practitioner;

(b) for the purpose of obtaining patients or work or of promoting his own professional interests, directly or indirectly advertise himself in any manner or procure, sanction or acquiesce in the publication of matter commending or directing attention to his professional skill, knowledge, services or qualifications or deprecating the professional skill, knowledge, services or qualifications of any other registered person.

These registered auxiliary personnel are in competition with persons, some of whom are qualified, but the majority of whom do not possess qualifications which would entitle them to registration. These unregistered persons are not bound by the ethical rules of the Council, and it is possible that some of them are indulging in various kinds of unethical practices.

As registered personnel voluntarily accept the restrictions placed on their practices by the Council's rules, it is the considered view of the Auxiliaries Committee of the Council that it is a duty of registered medical practitioners to refer work only to registered auxiliary personnel where such personnel is available.

Copies of the register of Medical Auxiliaries have been sent to the various Branches of the Medical Association of South Africa; medical practitioners who desire to ascertain whether a particular person is registered with the Council, may consult the register at the office of his particular Branch of the Association; alternatively he may obtain the information from the Council's office.

W. H. Barnard,
Assistant Registrar.

S.A. Medical and Dental Council,
P.O. Box 205,
Pretoria.
4 February 1953.

THE NEW LIQUOR BILL

To the Editor: The new Liquor Bill introduced in the Union Parliament by the Hon. Mr. C. R. Swart, Minister of Justice in the Union Government, and which was read for the first time on 5 March 1951, contains a number of provisions which are of some importance to registered medical practitioners. The provisions referred to are embodied in the following sections of the Bill:

96 (1). Whenever any registered medical practitioner certifies by writing under his hand that any person who under any provision of Part (c) of this Chapter is prohibited from obtaining or possessing liquor is in a condition of dangerous illness, and that it is necessary in consequence thereof that there should be administered to him either immediately or over a period not exceeding forty-eight hours liquor of the kind and in the quantity stated in the certificate, any holder of a bottle liquor license may, upon presentation to him of such certificate, supply to or for such person, and such person may receive, possess and consume, liquor of the kind and in the quantity stated in such certificate but in no case shall the quantity so supplied exceed half a pint.

(2) Any such certificate shall be as near as may be, in the form set out in Part (A) of the Fourth Schedule.

97 (1). Whenever any registered medical practitioner certifies by writing under his hand that any person who, in terms of Part (C) of this Chapter is prohibited from obtaining or possessing liquor, is suffering from the illness stated in the certificate, and that it is necessary for the restoration of his health that liquor should be administered to him of the kind, in the quantities, and at the intervals stated in the certificate, any officer of the police of or above the rank of sergeant or the senior member of the police in charge for the time being of any police post or station, upon being satisfied that liquor is *bona fide* required to be administered for medicinal purposes to the person mentioned therein, shall endorse upon it an authority to any holder of a bottle liquor license to supply to or for the person mentioned in the certificate, and such person may receive, possess and consume liquor in the quantities of the kind, and at the intervals mentioned in the certificate: Provided that the quantity so authorised to be supplied and received at any time shall in no case exceed one quart in the case of spirituous liquor or wine or one gallon in the case of any other liquor.

(2) Upon representation to him of any certificate made and endorsed in the manner provided in sub-section (1) any holder of a bottle liquor license may supply to or for the person named in such certificate liquor in terms of the authority endorsed thereon.

(3) Any such certificate shall be, as near as may be, in the form set out in Part (B) of the Fourth Schedule.

The official format of the medical certificates presented in Part A and Part B of the Fourth Schedule therein referred to is as follows:

Part A

Medical Certificate for Supply of Liquor not exceeding half a pint to prohibited person dangerously ill.

Address .....
Date .....

I, ... a registered medical practitioner residing at ..... hereby certify that at ..... o'clock on the ..... day of ..... 195..... I saw a person prohibited from procuring intoxicating liquor; that he is at present in a condition of dangerous illness; and that it is necessary in consequence thereof that there should be administered to him ..... of ..... such administration to be (distributed over a period of ..... hours) immediate.

Part B

Medical Certificate for Supply of Liquor not exceeding one quart in the case of spirituous liquor or wine or one gallon in the case of any other liquor to prohibited person for restoration of health.

Address .....
Date .....

I, ... a registered medical practitioner residing at ..... hereby certify that at ..... o'clock on the ..... day of ..... 195..... I saw a person prohibited from procuring intoxicating liquor; that he is suffering from ..... and that it is necessary for the restoration of his health that ..... of ..... should be administered to him during the next ..... at intervals of .....

I, ... a ..... of police stationed at ....., hereby authorise the holder of a bottle license to supply to or for the said ..... one ..... of .....

Louis F. Freed.

2 Barbican Bldg.,
Johannesburg.
5 February 1953.

THE 7TH INTERNATIONAL CONGRESS OF RADIOLOGY

To the Editor: I have been advised by the Secretary-General of the 7th International Congress, Professor Flemming Norgaard, that no further applications for membership of the Congress can be accepted. Those who have already enrolled will be accommodated, but owing to shortage of hotel accommodation, it is stressed that no one should come to Copenhagen without having made previous arrangements for accommodation, as it will be quite impossible to find rooms on arrival.

M. Weinbren,
Chairman of the South African Delegation.

X-Ray Department,
Chamber of Mines Hospital,
P.O. Box 774,
Johannesburg.
6 March 1953.

The Divisional Council of Stellenbosch

VACANCY: PART-TIME MEDICAL OFFICER OF HEALTH

Applications are invited from qualified medical practitioners for the post of part-time Medical Officer of Health for the Hottentots-Holland ward of the division of Stellenbosch.

No fixed fee is payable but a travelling allowance of 1s. per mile will be paid. A fee of 10s. per visit is also paid for attendances at V.D. Clinics.

The appointment to be made will be subject to the approval of the Secretary for Health.

Applications should reach the undersigned not later than Tuesday, 31 March 1953.

W. J. Pickard
Acting Secretary

Divisional Council Offices
Alexander Street
Stellenbosch
6 March 1953

Departement van Mynwese

AANSTELLING VAN DEELTYDSE SPESIALIS-INTERNISTE IN DIE MEDIESE SILIKOSEBURO

Aansoeke word ingewag van geregistreerde spesialis-interniste in Borskwale om aanstelling in die Mediese Silikoseburo, Johannesburg, in 'n deeltydse hoedanigheid teen 'n salaris van £1,000 per jaar. Die suksesvolle applikant(e) sal 12 uur per week in die Buro diens moet doen.

Die aanstelling sal op kontrak wees vir 'n tydperk van 3 jaar opseghaar met drie maande kennisgewing van beide partye.

Applikante moet besonderhede van hul kwalifikasies, ouderdom en vorige ondervinding verstrek en hul aansoeke instuur om die Sekretaris van Mynwese, Privaatsak, Pretoria, voor of op 31 Maart 1953, te bereik. (39974)

Provincial Administration of the Cape of Good Hope

HOSPITALS DEPARTMENT

CONRADIE HOSPITAL, PINELANDS, CAPE

VACANCIES: HONORARY ANAESTHETIST (2 POSTS)

Applications are invited from registered medical practitioners under the age of 60 years for appointment to the above-mentioned posts.

The appointments will be made in terms of and be subject to the Hospitals Ordinance No. 18 of 1946 (Cape), as amended, and to the rules and regulations of the Department, and will in the first place be for the period ending 31 December 1953, after which the honorary medical staff establishment may be revised.

Applications should state full particulars of age, qualifications, experience, etc., be accompanied by copies of recent testimonials, and should be forwarded to reach the Medical Superintendent, Pinelands, Cape, not later than noon on Tuesday, 7 April 1953.

Provinsiale Administrasie van die Kaap die Goeie Hoop

HOSPITAALDEPARTEMENT

CONRADIE HOSPITAAL, PINELANDS, KAAP

VAKATURES: ERE NAKOTISEUR (2 POSTE)

Aansoeke word ingewag van geregistreerde mediese praktisyns onder die ouderdom van 60 jaar vir aanstelling in die bogemelde poste.

Die aanstellings geskied ingevolge en is onderhewig aan die Ordonnansie op Hospitale No. 18 van 1946 (Kaap) soos gewysig, en die reels en regulasies van die Departement, en ten eerste sal dit vir die tydperk beëindig 31 Desember 1953 van krag wees, waarna die ere mediese diensstaat hersien mag word.

Aansoeke moet volle besonderhede meld van ouderdom, kwalifikasies, ondervinding, ens., moet vergesel wees van afskrifte van onlangse getuigskrifte, en moet aan die Mediese Superintendent, Conradie Hospitaal, Pinelands, gerig word om hom nie later as middag op Dinsdag, 7 April 1953, te bereik nie.

University of Cape Town

DEAN OF THE FACULTY OF MEDICINE

Applications are invited for the post of Dean of the Faculty of Medicine vacant from 1 February 1954. The appointment will be made under the terms of the joint staff agreement between the University and the Provincial Administration of the Cape of Good Hope. The post is a full-time one and the incumbent is not permitted to undertake remunerative private work. The Dean must have a medical qualification; he has the status of a professor and is a member of the Senate. The salary scale is £2,500 per annum plus a temporary cost-of-living allowance (at present £320 per annum for a married man and £100 per annum for others).

Applications should state age, qualifications, and experience in teaching or administrative work concerned with medical education, and should give the names of two referees. Applications should reach the Registrar, University of Cape Town, Private Bag, Rondebosch (from whom a memorandum giving the general conditions of appointment should be obtained), not later than 30 April 1953.

The University reserves the right to recommend the appointment of a person other than one of the applicants or to recommend no appointment.

Nasionale Hospitaal, Bloemfontein

VAKATURE

Aansoeke word hiermee ingewag van kandidate met geskikte kwalifikasies vir die volgende poste by die Nasionale Hospitaal en Tempe Provinsiale Hospitaal, Bloemfontein.

Aansoeke moet gerig word om die Geneesheer-Direkteur te bereik voor 30 Maart 1953 en moet volle besonderhede bevat aangaande die ouderdom, professionele kwalifikasies, ondervinding en huwelikstaat van die applikant en moet voorts 'n aanduiding bevat van die vroegste datum waarop diens aanvaar kan word indien aangestel.

(a) Voltydse Narkotiseur—spesialis op die salarisskaal £1,750 × 50—£1,900 p.j.

(b) Registrateur in Ortopedie met salaris van £400 na £600 per jaar na gelang van vorige ondervinding, plus vry inwoning op hospitaal terrein. In geval inwoning op hospitaal terrein nie beskikbaar is nie word £100 per jaar by salaris gevoeg. Applikante vir hierdie pos moet minstens twee jaar gekwalifiseerd wees.

Van persone wat aangestel word, sal verwag word om bevredigende sertifikate in ten dien aangaande kwalifikasies.

Benewens jaarlikse salarisse ontvang werknemers op die oomblik lewenskostetoelae.

Alle aanstellings geskied in terme van die Hospitaal Regulasies soos gewysig.

J. W. Wessels
Geneesheer-Direkteur

2 Maart 1953

A375688

National Hospital, Bloemfontein

VACANCIES

Applications are hereby invited from candidates with suitable qualifications for the following posts at the National Hospital and Tempe Provincial Hospital, Bloemfontein.

Applications must be posted to reach the Medical Superintendent before 30 March 1953 and must contain full particulars concerning age, professional qualifications, experience and marital status of the applicants who must indicate the earliest date on which duty can be assumed if appointed.

(a) Full-time specialist Anaesthetist on the salary scale £1,750 × 50—£1,900 p.a.

(b) Registrar in the department of Orthopaedics at a salary of £400 to £600 per annum according to previous experience, plus free quarters. If accommodation is not available then £100 per annum will be added to the salary. Applicant for this post must be qualified for at least 2 years.

Successful applicants will be expected to produce satisfactory certificates concerning qualifications.

In addition to annual salaries employees at present receive a cost-of-living allowance.

All appointments are subject to the Hospital Regulations as amended.

J. W. Wessels
Medical Superintendent

2 March 1953

A375688

For Sale

Surgeon retired from practice wishes to dispose of instruments, caskets, sterilizers, cystoscopes, sigmoidoscope, office furniture, etc. Telephone 6-4730, Cape Town, or write to 'A.P.O.', P.O. Box 643, Cape Town.

Town Council of Barberton

Medical Officer of Health (part-time appointment) in the service of Town Council of Barberton. Salary £25 per month inclusive of C.O.L.A. Apply in writing to Town Clerk, P.O. Box 33, Barberton, before 4 April 1953.

(67/32)

Bedfordview Village Council

VACANCIES: HEALTH DEPARTMENT

Applications are hereby invited from suitably qualified persons for the following positions:

(a) *Part-time Medical Officer of Health.*—With a salary of £180 per annum.

Duties will include weekly sessions of three hours per week at the non-European Clinic of the Council and any other duties allocated by the Council in the capacity of Medical Officer of Health.

(b) *Part-time Nurse.*—With a salary of £90 per annum.

The duties will consist of general nursing at the non-European Clinic of the Council which operates on an eight hour weekly basis.

Applicants must state particulars regarding qualifications, age, and experience and the earliest date duty can be assumed.

The appointments are subject to the approval of the Minister of Health.

Further particulars as to the duties pertaining to the post may be obtained from the Town Clerk or Health Inspector.

Applications must reach the undersigned not later than Friday, 10 April 1953.

George Todd
Town Clerk

P.O. Box 3
Bedfordview
5 March 1953

The Town Council of Somerset West

VACANCY: PART-TIME MEDICAL OFFICER OF HEALTH

Applications are invited from suitably qualified candidates for the above post. The emoluments applicable to this post are £300 per annum inclusive of cost-of-living and other allowances.

Applications stating qualifications, experience, age, whether bilingual and earliest date when duties can be assumed will be received by the undersigned up to Monday, 30 March 1953.

T. C. le Roux
Town Clerk

Municipal Office
Somerset West
Notice No. 9 of 1953
28 February 1953

Stadsraad Somerset-Wes

VAKATURE:
DEELTYDSE MEDIESE-GESONDHEIDSBEAMPTE

Aansoeke van behoorlik gekwalifiseerde kandidate word hiermee ingewag om bogemelde betrekking waaraan 'n totale vergoeding van £300 per jaar insluitende lewenskoste- en ander toelaes verbonde is.

Aansoeke met vermelding van kwalifikasies, ondervinding, ouderdom, tweetaligheid en vroegste datum waarop dienste kan aanvaar word, moet die ondergetekende bereik voor of op Maandag 30 Maart 1953.

T. C. le Roux
Stadsklerk

Munisipale Kantoor
Somerset-Wes
Kennisgewing No. 9 van 1953
28 Februarie 1953

St. Monica's Home

LION STREET **CAPE TOWN**

HONORARY ANAESTHETISTS (2)

Applications are invited from registered medical practitioners for the above-mentioned posts. The closing date for the receipt of applications is 4 April 1953.

O.F.S. Provincial Administration

VOORTREKKER HOSPITAL

VACANCY: RADIOGRAPHER GRADE II

Applications are hereby invited for the post of Radiographer Grade II at a salary of £350 × 30—£560 plus temporary cost-of-living allowance of £100 p.a. The commencing salary will be determined in accordance with qualifications and experience of applicant.

Applications stating previous experience, qualifications and age together with certified copies of certificates and testimonials, also birth and medical certificates should be addressed to the undersigned.

F. A. van Coller
Medical Superintendent

Kroonstad
25 February 1953
(A395632)

O.V.S. Provinsiale Administrasie

VOORTREKKER HOSPITAAL

VAKATURE: RADIOGRAAF GRAAD II

Aansoeke word hierby ingewag vir die pos van Radiograaf Graad II teen 'n salaris van £350 × 30—£560 plus tydelike lewenskostetoelae van £100 per jaar. Die aanvangsalaris sal bepaal word volgens ondervinding en kwalifikasies van die applikant.

Aansoek, waarin gemeld word vorige ondervinding, kwalifikasies, ouderdom asook gewaarmerkte afskrifte van sertifikate en getuigskrifte, geboorte- en mediese sertifikate moet aan die ondergetekende gerig word.

F. A. van Coller
Geneesheer-direkteur

Kroonstad
25 Februarie 1953
(A395632)

Borough of Pinetown

MEDICAL OFFICER OF HEALTH

(PINETOWN AND WESTVILLE)

Applications are invited for the position of Medical Officer of Health on the salary grade £1,000 × 50—£1,200 per annum, plus a transport allowance of £50 per annum.

The successful applicant will be required to devote the whole of his time exclusively to the duties of Medical Officer of Health jointly for the Borough of Pinetown and the Township of Westville. He will be responsible for the proper carrying out of all duties pertaining to this position jointly for the two local authorities mentioned and also be responsible for all matters relative directly or indirectly to the public health of both areas as prescribed in the Acts of Parliament and regulations promulgated thereunder, Ordinances and regulations thereunder, and the relative by-laws of both local authorities.

Applicants must be registered with the South African Medical and Dental Council as general practitioners and be in possession of a Diploma in Public Health.

The successful applicant will be required to serve a probationery period of six months.

Full particulars of qualifications and experience must be submitted and applications lodged with the undersigned by noon on 31 March 1953.

B. J. Zietsman
Town Clerk

Municipal Offices
Pinetown
5 March 1953

Betrekking Gevra

Ongetroude tweetalige dame vir Dokter of Tandaarts ontvangster, 5 jaar ondervinding van elk. Salaris £30. Antwoord "A. P. W.", Posbus 643, Kaapstad.

The Medical Association of South Africa : Die Mediese Vereniging van Suid-Afrika

AGENCY DEPARTMENT : AGENTSKAP-AFDELING

JOHANNESBURG

Medical House, 5 Esselen Street. Telephone 44-9134-5, 44-0817
Mediese Huis, Esselenstraat 5. Telefone 44-9134-5, 44-0817

PRAKTYKE TE KOOP : PRACTICES FOR SALE

(Pr S66) VERMINDERDE PREMIE. Uitstekende O.V.S. praktyk. Jaarlikse inkomste £3,400. D.G. aanstelling besorg 'n inkomste van ongeveer £100 per maand. Geen slegte skulde. Premie is verminder na £1,150 of naaste aanbod en terme kan gereël word om koper te pas. Geen huis om oorgeneem te word nie.

(Pr S70) O.F.S. hospital town. Very well-established practice. One appointment. Average annual income £3,600. This outstanding practice is for sale at only £1,500, payable as follows: £1,000 cash and balance over 15 months. A most delightful home is for sale at only £4,000 and a large bond could be raised.

(Pr S71) O.F.S. hospital town. Monthly income of £225 of which £150 cash. Excellent scope for expansion. Will suit doctor interested in surgery. What offers? Terms will be arranged.

(Pr S73) Excellent Pretoria practice, established 20 years ago. Two appointments worth £115 per month. *Net* income of £3,000 p.a. £400-£500 monthly bookings. Three months' introduction will be given. Premium required is £3,000, payable as follows: £1,000 cash and balance at £100 per month. Further details on application.

(Pr S76) Unopposed O.F.S. country practice. Average net income is £2,000 per annum. Premium required is £1,500 and payable as follows: £500 deposit and balance out of earnings over a period to be arranged. Beautiful house and surgery to let.

(Pr S74) O.V.S. Uitstekende praktyk met een myn-aanstelling van £400 per jaar. Aanstelling is definitief oordraagbaar. Jaarlikse inkomste van tussen £2,400 en £3,000 kan aansienlik vermeerder word. Premie is £750 en betaalbaar as volg: deposito van ongeveer £500 en balans teen £25 per maand. Huis en spreekkamers te huur teen £5 per maand.

(Pr S75) Oos-Transvaal. Geen opposisie en in hande van eienaar vir laaste 13 jaar. Een aanstelling. Jaarlikse inkomste is ongeveer £2,250. Lewenskoste baie laag. Pragtige woning en spreekkamers op een morg, tesame met praktyk, word aangebied teen die nominale bedrag van £3,500 en kopers kan voorstel tot afbetaling, voorlê.

(P O15) REDUCED PREMIUM: Half share in O.F.S. country practice partnership. Annual income £7,000 plus, showing a net income of £2,000 for each partner. Premium reduced to £1,500 and terms can be arranged.

(P O16) Half share in general practice in Southern Rhodesia hospital town. Average net share of each partner £4,600 p.a. Appointments worth £2,700 p.a. Premium and house on terms. Will suit man with wide surgical experience.

FOR SALE

(I O44) 'Peerless' Diathermy machine, with accessories and Caput applicator. £65.

(I O45) Birtcher Challenger portable model Diathermy machine as new. Price £130 o.n.o.

(I O46) Infra Red Lamp with folding stand, as new. £10.

(I O47) Wax bath. £12.

(I O48) Complete set arms and legs water bath. £12.

(I O49) Short-wave Diathermy (Luckenbach). Excellent condition. £100.

(I O50) Prometheus Lamp for theatre on high adjustable stand, in excellent condition. Price £15 o.n.o.

(I O51) Siemens Ultra-therm, short-wave, has done 179 hours. New valve recently. Price £120.

(I O52) Philips Practix Portable X-ray unit, almost new. Collapsible stand. Fluoroscope, cassettes, darkroom accessories, etc. A.C. 220V. 72KVP. Tropic-proof. Price £350.

(I O53) Instrument trolley, sterilizer and examination couch. Have been in use for four months. Reasonable price.

NURSING HOME FOR SALE

Nursing home, comprising 15 beds, as a going concern, in progressive O.F.S. hospital town and holiday resort. Price £7,000 o.n.o. Details on application.

KAAPSTAD : CAPE TOWN

Posbus 643, Telefoon 2-6177 : P.O. Box 643, Telephone 2-6177

PRAKTYKE TE KOOP : PRACTICES FOR SALE

(895) Partnership share in practice of Specialist Physician. Details on application.

(1132) East Griqualand. Opportunity for highly lucrative unopposed practice. Rich European farming area bounded by large native territory. D.S. appointment. Beautifully built large 7-roomed house on 3 erven. New Diesel lighting plant fully automatic generating 230 volts. £4,000 required for house, lighting plant, stock of drugs. Easy terms.

(740) Large dispensing practice, mainly non-European. Average annual cash receipts approx. £5,200. £5,500 required for premium, drugs and surgery furniture. Details on application.

(1276) Large hospital town, solus practice. Cash income for 1952 was £3,831 11s. Premium required is £2,250 cash or £2,500 on terms. Excellent surgery furniture as well as instruments included.

(1115) Cape Town suburban practice. Details on application.

(1266) Noord-Kaaplandse hospitaaldorp. Praktyk met kontant-ontvangste ongeveer £5,300 jaarliks. Geen opposisie. Medisyne word toeberei. Premie verlang £2,500 (medisyne, spreekkamermeubels, ens. word ingesluit). Huis te koop teen £2,000. Terme in afbetaling kan gereël word.

(1279) Kaap Provinsie, Hawestad. Praktyk met inkomste van £3,700. Premie £3,500, apteekmeubels, ens. ingeslote. Huis moontlik te huur, teen £20 p.m. Uitstekende geleentheid vir uitbreiding.

(1280) Eastern Cape dispensing practice with a large native population. Gross receipts £3,151. Premium required £1,500 including drugs, fittings and furniture. Modern house for sale at £3,500.

(1304a) Westelike Provinsie hospitaaldorp. Takpraktyk wat 10 jaar gelede gestig is. Kontant ontvangste per maand vir 1952 was minstens £70 plus £35 en ekstras van Spoorwegaanstelling. Huis met spreekkamers te huur teen £20 per maand. Definitiewe moontlikhede vir uitbreiding.

ASSISTENTE/PLAASVERVANGERS VERLANG
ASSISTANTS/LOCUMS REQUIRED

(1305) Westelike Provinsie hospitaaldorp. Vanaf 16 Mei tot einde Junie. Salaris £2 12s. 6d. per dag, alles vry. Indien locum sy eie kar het, 9d. per myl kartoelaag.

(1240) Oostelike Provinsie. Vanaf ongeveer 25 Maart vir 1 maand. Salaris £75 per maand plus vry inwoning, petrol en olie. Eie kar nie noodsaaklik. Dit is 'n Spoorwegpraktyk.

(1312) Boland hospitaaldorp. Vanaf ongeveer 20 Maart vir 3 maande. Moet minstens 5 jaar ondervinding hê. Eie kar, salaris kan gereël word.

(1313) Bechuana'and Mission Hospital. For the month of June. Salary £60, plus board and lodging. Transport provided by hospital.

(1314) Cape Town Southern Suburb. From 28 April for 3 weeks. Salary £2 12s. 6d. plus 10s. 6d. per day car allowance. Locum must have own car. Knowledge of Afrikaans not essential.

* * * *

DURBAN

112 Medical Centre, Field Street. Telephone 2-4049

PRACTICES FOR SALE : PRAKTYKE TE KOOP

(PD13) Natal Lower South Coast practice, near Pondoland border, suitable for retired doctor. Area developing and large Police holiday camp in vicinity. Excellent climate and very good fishing. Premium required £400, includes good stock of drugs and dressings, instruments and dispensary furniture. House for sale £1,800, including stand of one-third morgen. Bond available. For immediate sale. Owner having taken a full-time appointment.

(PD14) Non-European dispensing practice in rapidly expanding industrial and residential area, 11 miles from centre of coastal City. At present no night or after-hour calls, no week-

end or surgical work undertaken. Practice could be improved if run on a full-time basis, otherwise ideal as a subsidiary practice. Turnover for twelve months ended 31 June 1952 averaged £170 per month. Total expenses including car and travelling expenses £50 to £60 per month. Premium £750 including drugs, instruments and furniture.

(PD15) General practice established 1941 at pleasant residential and seaside resort about 10 miles south of Durban. Annual income approximately £1,000. No major surgery, minimum of minor surgery and only emergency midwifery being done at present. Brick house with consulting room attached, for sale at £5,250. Owing to ill health owner wishes to retire early in 1953. Premium £1,250 including drugs, surgery and dispensary furniture.

(PD18) Natal Midlands. Excellent prospects in rapidly developing area. General mixed practice. Seller going overseas. Premium £1,500 includes surgery furniture, fittings, instruments. Total gross receipts for 1950, £2,691; 1951, £2,709; 1952, £2,573. Ideal climate and sporting facilities. For immediate sale.

ASSISTENTE/PLAASVERVANGERS VERLANG
ASSISTANTS/LOCUMS REQUIRED

(132) Durban. Locum required as soon as possible for 3 months in well-established general practice. Possibility of assistantship. Salary to be discussed with the principal.

(133) From 15 June for 1 month. Locum preferably with own car. General country practice and District Surgeoncy. £2 12s. 6d. per day, plus board, lodging and laundry. Excellent climate. Near Drakensberg mountains.

(134) Zululand. From 26 June to end of July. £2 12s. 6d. per day, all found. Must be bilingual and possess own car.

South African Railways and Harbours Sick Fund

APPOINTMENT OF RAILWAY MEDICAL OFFICER: PORT ELIZABETH DISTRICT "F"

Applications are invited from registered medical practitioners for appointment to the position of Railway Medical Officer, Port Elizabeth, district 'F' and for section of railway line New Brighton (inclusive) to Kenkelbosch (inclusive), at a salary of £1,624 per annum, plus the fees and allowances prescribed by the Regulations of the Sick Fund, and with the right of private practice.

The salary will be subject to adjustment in accordance with the census of members to be taken on 1 April of each year.

The appointment will be made in terms of the Regulations of the Sick Fund, and will be subject to termination on four months' notice being given by either side.

The successful candidate will be required to reside at Port Elizabeth within the medical district, to take up his appointment on a date to be arranged, and to carry out his duties in accordance with the Regulations of the Fund.

Applications should reach the District Secretary, Cape Midland District Sick Fund Board, Room 116, South African Mutual Building, Main Street, Port Elizabeth, not later than 27 April 1953, and should state:

1. Full name.
2. Qualifications (when and where obtained).
3. Experience (when and where obtained).
4. Date of birth.
5. Country of birth.
6. Whether married or single.
7. Whether fully bilingual.
8. Whether South African citizen.
9. What Government appointment, if any, is held.

Canvassing by or on behalf of any applicant is liable to disqualify such applicant.

Any further particulars may be obtained from the District Secretary at the above address, on application.

P. J. Klem
General Secretary

Johannesburg
21 March 1953

Transvaal Provincial Administration

VACANCIES: TRANSVAAL PUBLIC HOSPITALS

Applications are invited from suitably qualified candidates for the under-mentioned posts at Public Hospitals in the Transvaal.

Applications should be addressed to the Medical Superintendents of the under-mentioned hospitals concerned and should contain full particulars as to the age, professional and academic and language qualifications, experience and conjugal status of the applicant and should further indicate the earliest date upon which duties can be assumed. Copies, only, of recent testimonials to be attached.

Cost-of-living allowance payable at present to full-time employees:—

	Cost-of-living Allowance	
Salary	*Married*	*Single*
Over £350 per annum	£320 per annum	£100 per annum

Full-time employees receive in addition to their salaries and cost-of-living allowance, the following privileges:

Leave and rail concession.

Successful candidates will be required to submit satisfactory certificates as also to submit to a medical examination at the hospital concerned.

Application forms are obtainable from any Transvaal Provincial Hospital or the Provincial Secretary, Hospital Services Branch, P.O. Box 2060, Pretoria.

The closing date of applications for under-mentioned posts will be 30 March 1953.

Hospital	*Post*	*Emoluments*	*Remarks*
Pietersburg	Senior Assistant Radiologist	£1,800 per annum	Registered medical practitioner D.M.R. To attend at the Pietersburg and Potgietersrust hospitals.
Potchefstroom	Part-time Ophthalmologist	£102—10 per annum	Registered medical practitioner, half session per week.
	or		
	Part-time General Practitioner (ophthalmology)	£85 per annum	Registered medical practitioner, half session per week.
	or		
	Part-time Otorhinolaryngologist	£102—10 per annum	Registered medical practitioner, half session per week.
	or		
	Part-time General Practitioner (ear, nose and throat)	£85 per annum	Registered medical practitioner, half session per week.

(40100)

Village Management Board of Alicedale

PART-TIME MEDICAL OFFICER OF HEALTH

Applications are invited for the abovementioned post at an honorarium of £60 per annum and will be received by the undersigned till 3 p.m. on 31 March 1953.

H. V. Whitwam
Secretary

508 Nataid House
14 Plein Street
Johannesburg

(299)

Dorpsbestuur van Alicedale

DEELTYDSE MEDIESE GESONDHEIDSAMPTENAAR

Aansoeke vir die bovermelde betrekking teen 'n honorarium van £60 per jaar word gevra en sal deur die ondergetekende tot 3 nm. op 31 Maart 1953, ingewag word.

H. V. Whitwam
Sekretaris

Nataidgebou 508
Pleinstraat 14
Johannesburg

(299)

Provincial Administration of the Cape of Good Hope

HOSPITALS DEPARTMENT

HOSPITAL BOARD SERVICE: VACANCIES

1. Applications are invited for the following vacant post:

Institution	*Post*	*Emoluments*	*Closing date*	*Applications must be addressed to*
Kimberley Hospital, Kimberley	Medical practitioner, Grade E (Radiologist)	£1,600 p.a. (fixed)	14.4.53	The Director of Hospital Services, P.O. Box 2060, Cape Town.

2. The conditions of service are prescribed in terms of Hospital Board Service Ordinance No. 19 of 1941, as amended, and the regulations framed thereunder.

3. In addition to the scale of salary indicated a cost-of-living allowance at rates prescribed from time to time by the Administrator is payable to whole-time officials and employees.

4. The successful candidate, if not already in the Hospital Board Service will be required to submit satisfactory birth and health certificates.

5. Application must be made on the prescribed form (Staff 23) which is obtainable from the Director of Hospital Services, P.O. Box 2060, Cape Town, or from the Medical Superintendent of any Provincial Hospital or Secretary of any School Board in the Cape Province.

6. Candidates must state the earliest date on which they can assume duty. (A562560)

Provinsiale Administrasie van die Kaap die Goeie Hoop

HOSPITAALDEPARTEMENT

HOSPITAALRAADSDIENS: VAKATURES

1. Aansoeke word ingewag vir die onderstaande vakante pos:

Inrigting	*Pos*	*Emolumente*	*Sluitingsdatum*	*Aansoeke moet gerig word aan*
Kimberley-hospitaal, Kimberley	Mediese Praktisyn, Graad E (Radioloog)	£1,600 p.j. (vasgestel)	14.4.53	Die Direkteur van Hospitaaldienste, Posbus 2060, Kaapstad.

2. Die diensvoorwaardes word voorgeskryf ingevolge die Ordonnansie op Hospitaalraadsdiens nr. 19 van 1941, soos gewysig, en die regulasies daarkragtens opgestel.

3. Benewens die salarisskaal soos aangedui is 'n lewenskostetoelae betaalbaar aan voltydse beamptes en werknemers, wat van tyd tot tyd deur die Administrateur vasgestel word.

4. Die suksesvolle kandidaat indien nie reeds in die Hospitaalraadsdiens nie moet bevredigende geboorte- en gesondheidsertifikate indien.

5. Aansoek moet gedoen word op die voorgeskrewe vorm (Staf 23) wat verkrygbaar is by die Direkteur van Hospitaaldienste, Posbus 2060, Kaapstad, of by die Mediese Superintendent van enige Provinsiale Hospitaal of by die Sekretaris van enige Skoolraad in die Kaapprovinsie.

6. Kandidate moet die vroegste datum meld waarop hulle diens kan aanvaar. (A562560)

Assistant Wanted

Assistant wanted in general practice. Natal Midlands. Own car. Reply re conditions, etc. to "A. P. T.", P.O. Box 643, Cape Town.

Provincial Administration of the Cape of Good Hope

HOSPITALS DEPARTMENT

VACANCY: MEDICAL PRACTITIONER, GRADE B

CONRADIE HOSPITAL, PINELANDS, CAPE

Applications are invited from registered medical practitioners for the above-mentioned post on the permanent establishment of the Conradie Hospital, Pinelands.

The commencing salary will be £720 per annum on the scale £720 × 40—£960, plus the temporary cost-of-living allowance at Government rates.

The successful applicant would be required to assume duty on 1 May 1953.

Conditions of service are prescribed in terms of Hospital Board Service Ordinance No. 19 of 1941, as amended, and the regulations framed thereunder.

Applications on the prescribed forms (Staff 23) in duplicate, should be addressed to the Medical Superintendent, Conradie Hospital, Pinelands, and the closing date for the receipt thereof will be noon on Tuesday, 7 April 1953. Application forms are obtainable from the office of any Provincial Hospital or School Board in the Cape Province.

Provinsiale Administrasie van die Kaap die Goeie Hoop

HOSPITAALDEPARTEMENT

VAKATURE: GENEESHEER, GRAAD B

CONRADIE HOSPITAAL, PINELANDS, KAAP

Aansoeke word ingewag van geregistreerde geneeshere vir die bogemelde pos op die vaste diensstaat van die Conradie Hospitaal, Pinelands.

Aanvangsalaris is £720 per jaar op die salarisskaal £720 × 40—£960, plus die tydelike lewenskostetoelae teen Goewerment skale.

Van die geslaagde kandidaat word verwag om op 1 Mei 1953, diens te aanvaar.

Die diensvoorwaardes word voorgeskryf ingevolge die Ordonnansie op Hospitaalraadsdiens No. 19 van 1941, soos gewysig, en die regulasies wat daarkragtens opgestel is.

Aansoeke, op die voorgeskrewe vorm (Staf 23), in duplo, moet aan die Mediese Superintendent, Conradie Hospitaal, Pinelands, gerig word, en die sluitingsdatum vir ontvangs daarvan sal middag op Dinsdag, 7 April 1953 wees. Aansoekvorms is verkrygbaar by die kantoor van enige Provinsiale Hospitaal of Skoolraad in die Kaap Provinsie.

Natal Provincial Administration

VACANCY: RADIOLOGIST (CONTRACT): COASTAL DISTRICTS

Salary—£1,800 p.a. (fixed).
Temporary Cost-of-Living Allowance:
Single—£100 per annum.
Married—£320 per annum.

Applications should reach the Director of Provincial Medical and Health Services, P.O. Box 20, Pietermaritzburg, Natal, South Africa, by 15 April 1953.

(AD7523)

Specialist Anaesthetist's Practice For Sale

Excellent opportunity for registered specialist anaesthetist (male or female) to acquire a good practice immediately with income £2,500—£3,000 p.a. Reply to "A. P. X.", P.O. Box 643, Cape Town.

Printed by Cape Times Ltd., Parow, and Published by the Proprietors, THE MEDICAL ASSOCIATION OF SOUTH AFRICA, MEDICAL HOUSE, 35 Wale Street, Cape Town. P.O. Box 643. Telephone 2-6177. Telegrams: 'Medical'